Frymaster®

We Fit the Way You Fry™

FilterQuick™ FQ4000 easyTouch®
Taco Bell Controller (Fryers manufactured prior to 06/2024)

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®

NOTICE

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

NOTICE

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

NOTICE

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

NOTICE TO OWNERS OF UNITS EQUIPPED WITH CONTROLLERS
U.S.

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

CANADA

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

Cet appareil 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.

NOTICE

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

⚠ **DANGER**

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

⚠ **DANGER**

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

⚠ **WARNING**

Do not add HOT or USED oil to a JIB.

⚠️ **WARNING**

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

⚠️ **DANGER**

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

⚠️ **DANGER**

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

⚠️ **DANGER**

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

⚠️ **DANGER**

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

⚠️ **DANGER**

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

⚠️ **DANGER**

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

⚠️ **WARNING**

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

⚠️ **DANGER**

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

⚠️ **WARNING**

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

⚠️ **WARNING**

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

⚠️ **DANGER**

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

⚠ **WARNING**

Never operate the filter system without oil in the system.

⚠ **DANGER**

The crumb tray in fryers equipped with a filter system MUST be emptied into a fireproof container at the end of frying operations each day. Some food particles can spontaneously combust if left soaking in certain shortening material.

⚠ **DANGER**

When using a sediment basket, it MUST be removed and emptied prior and during each filtration. Some food particles can spontaneously combust if left soaking in certain shortening material.

⚠ **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™ FQ4000 Taco Bell
Controller Manual
TABLE OF CONTENTS

CHAPTER 2: FilterQuick™ FQ4000 Filtration Menu Functions Instructions

CHAPTER 3: Operator Troubleshooting

CHAPTER 1: FILTERQUICK™ FQ4000 TACO BELL easyTouch® CONTROLLER INSTRUCTIONS

1.1 FQ4000 General Information

Welcome to the FQ4000, an easy-to-use touch screen controller with the utility of 40-product menu capability. One button push starts a cook cycle for a selected product. The controller can move seamlessly from one product to another.

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

1.2 FQ4000 Button Description and Functions

1.2.1 Navigation Buttons
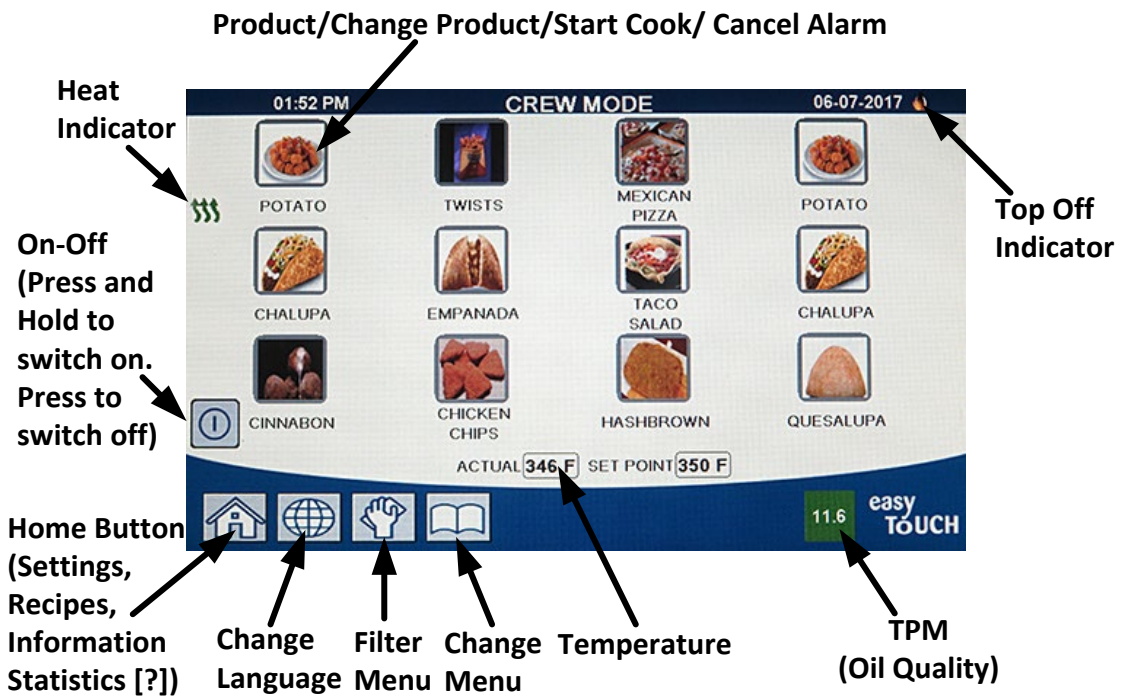
1.2.1.1 Main Menu Button Bar

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

Figure 1

1.2.1.2 Home Button

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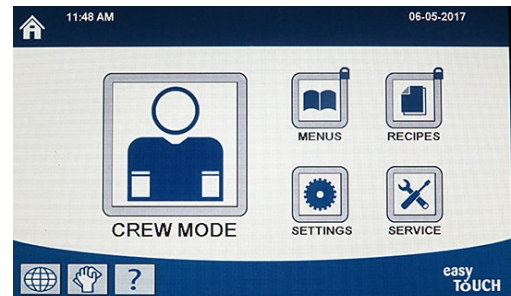
Figure 2

1.2.1.3 Crew Mode Button

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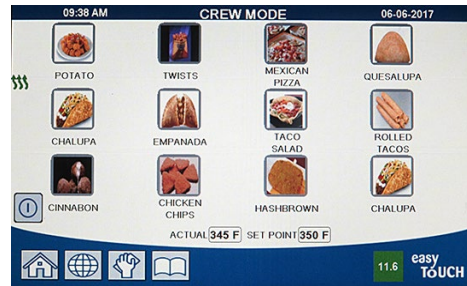
Figure 3

1.2.1.4 Menus Button

The menus button is used to set up multiple menus with specific products such as breakfast, lunch and changeover menus (See Figure 4).
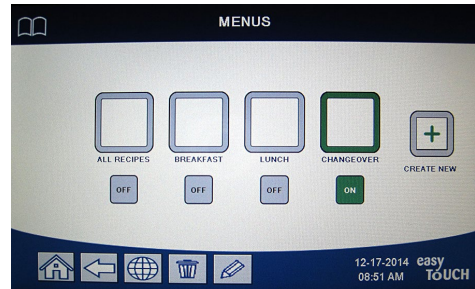

Figure 4

1.2.1.5 Recipes Button

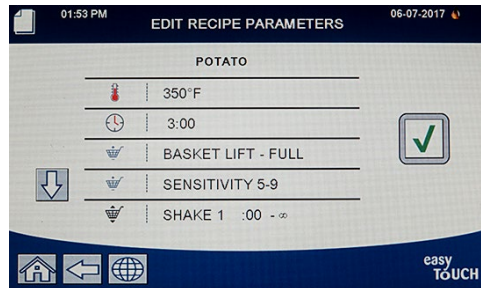The recipes button allows editing or adding of products (see Figure 5).

Figure 5

1.2.1.6 Settings Button

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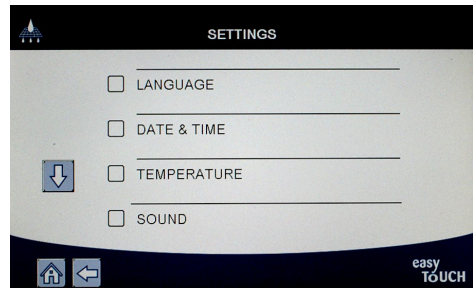
Figure 6

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.
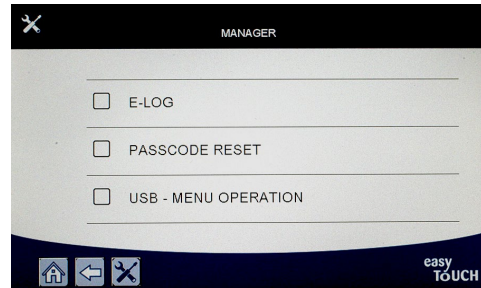
Figure 7

1.2.1.8   Power Button

Pressing and holding the power button for three (3) seconds powers up the 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 and filling the vats (see Figure 10).

Figure 10

1.2.1.11   Menu Button

Pressing the menu button allows switching between different menus if configured (see Figure 11).

Figure 11

1.2.1.12   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 12).

Figure 12

1.2.1.13   Escape Menu Items

To escape or back out of MENUS and SUB-MENUS, press the Home or Back arrow button (see Figure 13).
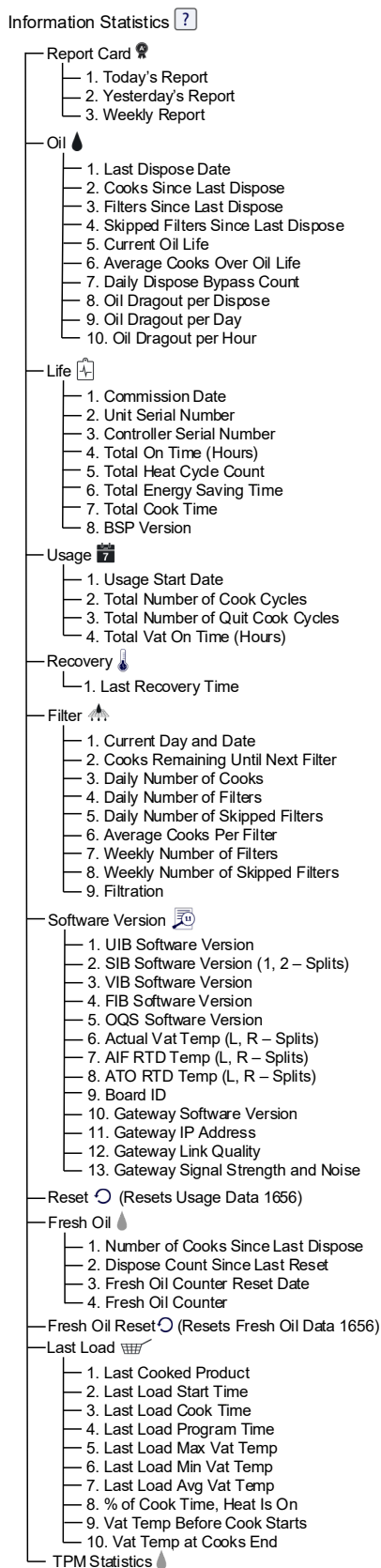
Figure 13

1.3 FQ4000 Taco Bell Menu Summary Tree

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

Filtration Menu ✋
— AM Long Filter and OQS
— PM Short Filter and OQS
— OQS-Filter
— Dispose
— Fill Vat from Pan
— Fill Vat from Bulk (Bulk Only)
— Pan to Waste (Bulk Only)
— Drain to Pan
— Clean

Home Button 🏠
— Crew Mode (Cooking Mode) 👤
— Menus (1650) 📖
  — Create New
— Recipes (1650) 📔
  — Product Name
  — Temp 🌡
  — Cook Time 🕐
  — Basket Lift 🧺
  — Sensitivity 🧺
  — Shake 1 🧺
  — Shake 2 🧺
  — Filter ⛰
  — Drain Timer 🕐
  — Hold Timer 🕐
— Settings ⚙
  — Manager (1656) 👥
    — Language
      — Primary
      — Secondary
    — Date & Time
    — F° to C°/ C° to F° (Toggles Temperature Scale)
    — Sound
      — Volume
      — Tone
    — Filter Attributes
      — Filter After (Cooks)
      — Filter Time (Hours)
      — Filter Off Time
      — Filter Off Settings
      — Clean (Cold/Hot)
      — AM Long Filter Time
      — AM Long Filter Delay Timer
      — PM Short Filter Time
      — PM Short Filter Delay Timer

      NOTE: Grayed out options are not available.

    — Energy Savings (Enabled, Temperature, Time)
    — Lane Assignments (# of Baskets)
    — Brightness
    — Screen Saver
    — Alarm Attributes
      — Shake Alarm Mode (Auto / Manual)
      — Drain Alarm Mode (Auto / Manual)
      — Hold Alarm Mode (Auto / Manual)
      — Alarm Timer (Drain Timer / Hold Timer)
    — Basket Lift
    — Oil Dragout
  — Service (3000) 👥
    — Locale (CE / Non-CE)
    — Energy Type (Gas / Electric)
    — Vat Type (Full / Split)
      — Basket Configuration
    — Oil System Type (JIB / Bulk)
    — Waste Oil (None / Bulk)
    — Auto Top Off Vat (On / Off)
    — ATO Delay Time
    — ATO Type (Auto, Push Button, Both)
    — Filtration Time Settings
    — OQS Setup
      — OQS (Enable/Disable)
      — Oil Type (Oil Curve)
      — Display Type (Number/Text)
      — Discard Now (TPM Value)
      — Discard Soon (TPM Offset Value)
      — Dispose Delay Timer
    — Basic Auto Filter (Enable/Disable)
    — AM/PM Filter Settings
      — AM/PM Filter On/Off
      — Disable AM/PM Filter
    — Temperature
    — AIF Temperature Display

Service 🔧
— Manager (1656) 👥
  — E-Log
  — Passcode Setup
  — USB Menu Operation
    — Copy Menu from USB to Fryer
— Crew 👤
  — Hi-Limit Test

1-4

1.4 FQ4000 Information Summary Tree

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

```
Information Statistics [?]
  ── 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
  ── 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
      ── 8. BSP Version
  ── Usage 📅
      ── 1. Usage Start Date
      ── 2. Total Number of Cook Cycles
      ── 3. Total Number of Quit Cook Cycles
      ── 4. Total Vat On Time (Hours)
  ── Recovery 🌡
      ── 1. Last Recovery Time
  ── 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
  ── 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
  ── Reset ↻ (Resets Usage Data 1656)
  ── 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 1656)
  ── 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 Cooks End
  ── TPM Statistics 🌢
```

1.5 Basic Operation

FQ4000 easyTouch® Taco Bell Operation

Turn Fryer ON or OFF
Press and hold button to switch on. Press button to switch off. Select button on desired side of a split vat. If the frypot is **FULL** press the check ✓ YES button.
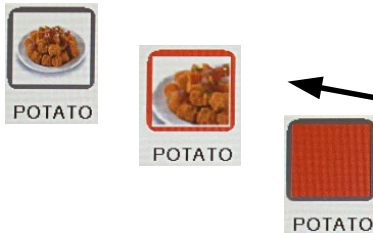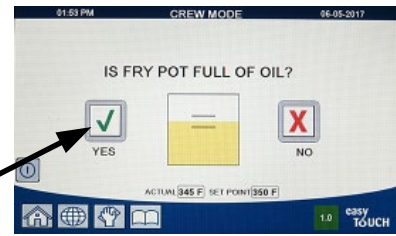
Changing a Product
Press and hold the product button to change. The outline of the button changes from green to red and then to solid red. Select and press the new product button.
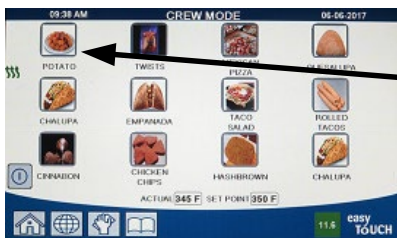
Start a Cook Cycle
Press the product button to start a cook. The timer will start counting down. If using the optional basket lift, choose the basket type and position.

Cancel a Cook Cycle
Press and hold the active countdown product button until an "**X**" is visible; then release.

Cancel an end of Cook (REMOVE) Alarm
Press product button that's alternating REMOVE / CHECK.

Home Button (Settings, Recipes, Information Statistics)

Change Language

Filter Menu

Menu

TPM

Information Statistics

1.6 Cooking

Cooking with the Taco Bell FQ4000 easyTouch® Controller

1 A product is shown in display. To 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 and press the new product button.

2 Press the product button to begin the cook cycle.

3 Display changes to COOKING. The timer will start counting down.

4 REMOVE alternating with the CHECKMARK is displayed when the cook cycle is complete. Press the REMOVE/CHECKMARK button to cancel alarm. If an optional basket lift is used this step is not necessary.

5 DRAIN TIMER is displayed as the drain timer counts down and ends with DRAIN EXPIRED. Press the DRAIN EXPIRED/CHECKMARK button to cancel alarm.

6 DRAIN EXPIRED alternating with the CHECKMARK is displayed when the hold time has elapsed and expired. Press the DRAIN EXPIRED/CHECKMARK button to cancel alarm.
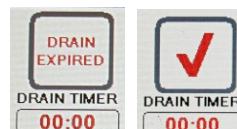
7 HOLD TIMER is displayed as the hold timer counts down.

8 HOLD EXPIRED alternating with the CHECKMARK is displayed when the hold time has elapsed and expired. Press the HOLD EXPIRED/ CHECKMARK button to cancel alarm.
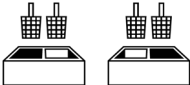
9 The display returns to the crew mode screen and the unit is ready for cooking.
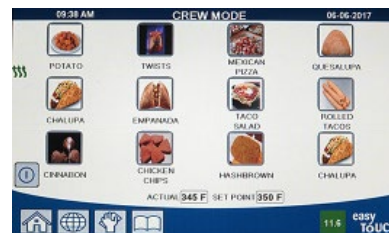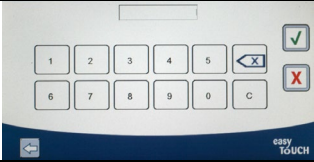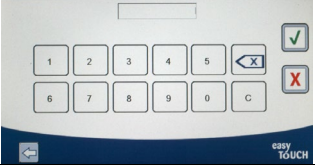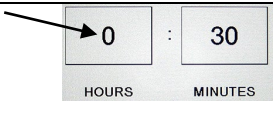
## 1.7   Fryer (Service) Setup Programming

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

DISPLAY	ACTION
⏻ ⌂	1. With the controller at the off/standby position, press the Home button.
⚙	2. Press the Settings button.
🧑‍🔧	3. Press the Service button.
3 0 0 0	4. Enter **3000**
✓	5. Press the √ (check) button.
◻ **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.
◻ **VAT TYPE**	14. Press the Vat Type button.
FULL VAT SPLIT VAT	15. Select **FULL VAT** or **SPLIT VAT**.
6	16. Select Basket Configuration. Default is **6** products per side.
LANE 1/4 LANE 2/4 LANE 3/4 LANE 4/4	17. Press the Product icon and choose the desired product. Repeat for other lanes.
🖫	18. Press the Save button when complete.
SETUP COMPLETE RESTART THE SYSTEM	19. No action.
✓	20. Press the √ (check) button.
⬇	21. Press the Down arrow button.
◻ **OIL SYSTEM TYPE**	22. Press the Oil System Type button.

DISPLAY	ACTION
JIB BULK	23. Select **JIB** or **BULK**. **NOTE:** A JIB (Jug in a Box) or BIB (Bag in a Box) is a disposable type oil container. A bulk system has large storage oil tanks that are connected to the fryer that fills an onboard reservoir.
SETUP COMPLETE RESTART THE SYSTEM	24. No action.
✓	25. Press the √ (check) button.
□ **WASTE OIL**	26. Press the Waste Oil button.
NONE BULK	27. Select **NONE** or **BULK**. **NOTE:** Select NONE if disposing oil into an SDU or other METAL container. Select BULK if disposing oil into a bulk oil system, which has large storage oil tanks that are connected to the fryer.
SETUP COMPLETE RESTART THE SYSTEM	28. No action.
✓	29. Press the √ (check) button.
□ **AUTO TOP OFF VAT**	30. Press the Auto Top Off Vat button.
	31. Select **LEFT VAT** or **RIGHT VAT** for split vats (Split Vats only).
ON OFF	32. Select **ON** unless top off is not desired for this vat. Default is **ON**.
⇩	33. Press the Down arrow button.
□ **ATO DELAY TIME**	34. Press the ATO Delay time button.
0 MINUTES ✓	35. Press the time to change the delay time after the top off oil reservoir has been changed before the system begins to top off. Press the √ (check) button. The default is 0 minutes for liquid shortening. Enter a value greater than 0 for solid shortening.
SETUP COMPLETE ✓	36. Press the smaller √ (check) button inside the SETUP COMPLETE box.
□ **ATO TYPE**	37. Press the ATO Type button.
AUTO PUSH BUTTON BOTH	38. 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 ✓	39. Press the √ (check) button inside the SETUP COMPLETE box.

DISPLAY	ACTION
□ **FILTRATION TIME SETTINGS**	40. Press the Filtration Time Settings button.
□ **AM FILTER** □ **PM FILTER** □ **CLEAN TIME** □ **AUTO FILTER FLUSH TIME** □ **CLEAN & FILTER FLUSH TIME** ⬅	41. These settings should **ONLY** be adjusted if instructed by the factory. Adjusting these can severely impact filters. The default settings are: □ AM FILTER -300 □ PM FILTER -300 □ CLEAN TIME -3600 □ AUTO FILTER FLUSH TIME -25 □ CLEAN & FILTER FLUSH TIME -25 Press the back button when complete.
□ **OQS SETUP**	42. Press the OQS Setup button if an OQS sensor is installed.
□ **OQS ENABLE/DISABLE**	43. Press OQS ENABLE/DISABLE button to enable/disable the OQS sensor.
ENABLE DISABLE	44. Select **ENABLE** to enable the OQS sensor or **DISABLE** to disable the OQS sensor.
SETUP COMPLETE ✓	45. Press the √ (check) button inside the SETUP COMPLETE box.
□ **OIL TYPE**	46. Press the Oil Type button.
OC01v02, OC02v02, etc. ⬇	47. 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 ✓	48. Press the √ (check) button inside the SETUP COMPLETE box.
□ **DISPLAY TYPE**	49. Press the Display Type button.
NUMBER TEXT	50. 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 ✓	51. Press the √ (check) button inside the SETUP COMPLETE box.
□ **DISCARD NOW**	52. Press the Discard Now button.
TPM VALUE	53. 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. (Default 23)
	54. Use the keypad to enter the TPM discard now value.
✓	55. Press the √ (check) button once the value is entered.
✓	56. Press the √ (check) button to save the value.

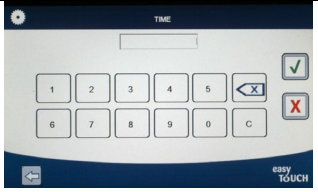| DISPLAY	ACTION
SETUP COMPLETE ✓	57. Press the √ (check) button inside the SETUP COMPLETE box.
⬇	58. Press the down arrow button.
□ **DISCARD SOON**	59. Press the Discard Soon button.
TPM VALUE	60. Press the number above Discard Soon TPM Value. This value is typically chosen as a number below the TPM 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. (Default 20)
	61. Use the keypad to enter the TPM discard soon value.
✓	62. Press the √ (check) button once the value is entered.
✓	63. Press the √ (check) button to save the value.
SETUP COMPLETE ✓	64. Press the √ (check) button inside the SETUP COMPLETE box.
□ **DISPOSE DELAY TIMER**	65. 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	66. Press the hour's box to enter a delay time in hours.
	67. Using the key pad, enter the time in hours.
0 : 30 HOURS MINUTES	68. Press the minute's box to enter a delay time in minutes.
	69. Using the key pad enter the time in minutes.
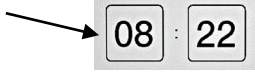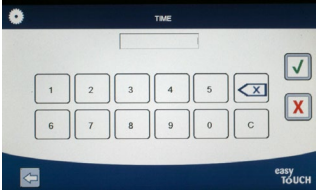
DISPLAY	ACTION
☑	70. Press the √ (check) button to save the value.
SETUP COMPLETE ☑	71. Press the √ (check) button inside the SETUP COMPLETE box.
⇦	72. Press the back button when complete.
⇩	73. Press the down arrow button.
□ **BASIC AUTO FILTER**	74. Press the Basic Auto Filter button.
ENABLE DISABLE	75. Select **ENABLE** Basic Auto Filter (Auto Filtration for units without OIB sensors) or **DISABLE** Basic Auto Filtration (Auto Filtration for units with OIB sensors). (Default ENABLE)
SETUP COMPLETE ☑	76. Press the √ (check) button inside the SETUP COMPLETE box.
□ **AM/PM FILTER SETTINGS**	77. Press the AM/PM Filter Settings button.
□**AM/PM FILTER ON/OFF**	78. Press the AM/PM Filter ON/OFF button.
ON OFF	79. Select **ON** to Enable AM/PM Filters or **OFF** to Disable AM/PM Filters.
SETUP COMPLETE ☑	80. Press the √ (check) button inside the SETUP COMPLETE box.
□ **DISABLE AM/PM FILTER**	81. This option is only available if AM/PM Filter ON/OFF is set to OFF. Press the DISABLE AM/PM FILTER button.
PERMANENT AFTER 48HOURS	82. Select **PERMANENT** to disable AM/PM filters until reenabled or **AFTER 48 HOURS** to automatically reenable AM/PM filters after 48 hours.
SETUP COMPLETE ☑	83. Press the √ (check) button inside the SETUP COMPLETE box.
⇦	84. Press the Back button.
□ **TEMPERATURE**	85. Press the Temperature button.
ENABLE DISABLE	86. Select enable to enable the temperature button. Select disable to disable the temperature button and display constant temperature display.
SETUP COMPLETE ☑	87. Press the √ (check) button.
⇦	88. Press the Back button.
□ **AIF TEMPERATURE DISPLAY**	89. Press the AIF Temperature Display button.

DISPLAY	ACTION
ENABLE DISABLE	90. Select enable to enable the AIF temperature display. Select disable to disable the AIF temperature display and display constant AIF temperature display. This is primarily used for troubleshooting. Default is DISABLE.
SETUP COMPLETE ✓	91. Press the √ (check) button when complete.
🏠	92. Press the Home button.
CREW MODE	93. Press the Crew Mode button.
	94. Press and hold the momentary reset switch. Ensure the switch is pressed and held for one (1) minute. On gas units, the button is located under the far-left control box or under the USB slot. On electric units, the button is located on the rear of the control box behind the JIB reset switch or under the USB slot.
⏻	95. The system reboots in approximately 45 seconds and returns to off/standby mode.

1.8   Fryer (Manager) Settings Programming

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

DISPLAY	ACTION
⏻ 🏠	1. With the controller at the off/standby position, press the Home button.
⚙	2. Press the Settings button.
👤	3. Press the Manager button.
1 6 5 6	4. Enter **1656**
✓ 🌐	5. Press the √ (check) button.
□ **LANGUAGE**	6. Press the Language button.
🌐	7. Press the Primary Language button.
□ **ENGLISH**	8. Select the language desired.
🌐	9. Press the Secondary Language button.
□ **SPANISH**	10. Select the language desired.

DISPLAY	ACTION
⇐	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.
[TIME keypad image]	15. Using the key pad, enter the time in hours.
08 : 22 ←	16. Press the minute's box.
[TIME keypad image]	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.

DISPLAY	ACTION
SETUP COMPLETE ✓	30. Press the smaller √ (check) button inside the SETUP COMPLETE box.
□ DST SETTINGS	31. Press the DST SETTINGS button.
□ 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 distinguish different vats.
✓	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. The Filter After, Filter Time, Filter Off Time, Filter Off Settings and Clean functions are not available.
⇩	45. Press the Down button.
□ AM LONG FILTER TIME ✓	46. Press the AM Short Filter Delay Timer button. Enter the start time for the AM Long Filter Time prompt and press the √ (check) button. (Default is 10:00am). Enter 00:00 to

DISPLAY	ACTION
	temporarily disable.
SETUP COMPLETE RESTART THE SYSTEM ✓	47. Press the √ (check) button.
□ **AM LONG FILTER DELAY TIMER** ✓	48. Press the AM Short Filter Delay Timer button. Enter the delay time for the AM Long Filter Time and press the √ (check) button. This is the amount of time which an operator can delay the start of an AM Long Filter.) After the delay, the operator must filter.
SETUP COMPLETE RESTART THE SYSTEM ✓	49. Press the √ (check) button.
□ **PM SHORT FILTER TIME** ✓	50. Press the PM Short Filter Time button. Enter the start time for the PM Short Filter Time prompt in 24-hour time format (ie. (8:00PM – Enter as 20:00) and press the √ (check) button. Enter 00:00 to temporarily disable.
SETUP COMPLETE RESTART THE SYSTEM ✓	51. Press the √ (check) button.
⬇	52. Press the Down button.
□ **PM SHORT FILTER DELAY TIMER** ✓	53. Press the PM Short Filter Delay Timer button. Enter the delay time for the PM Short Filter Time in minutes and press the √ (check) button. This is the amount of time which an operator can delay the start of a PM Short Filter.) After the delay, the operator must filter.
SETUP COMPLETE RESTART THE SYSTEM ✓	54. Press the √ (check) button.
⬅	55. Press the Back button.
□ **ENERGY SAVINGS**	56. Press the Energy Savings button. The Energy Savings option is used during idle periods to lower the frypot temperature to save energy.
OFF ON	57. Press the Enable button to toggle the Energy Saving option on or off.

DISPLAY	ACTION
☑	58. 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.
☑	59. 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.
☑	60. Press the √ (check) button.
SETUP COMPLETE ☑	61. Press the smaller √ (check) button inside the SETUP COMPLETE box.
□ LANE ASSIGNMENTS	62. This function is not available.
□ BRIGHTNESS	63. Press the Brightness button. This is used to set the brightness of the screen. Use the up down arrows to adjust. (Default is 100.)
☑	64. Press the √ (check) button.
SETUP COMPLETE ☑	65. Press the smaller √ (check) button inside the SETUP COMPLETE box.
⇩	66. Press the Down button.
□ SCREEN SAVER	67. 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.)
△ ▽	68. 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.
☑	69. Press the √ (check) button when complete.
SETUP COMPLETE ☑	70. Press the √ (check) button when complete.
□ ALARM ATTRIBUTES	71. Press the Alarm Attributes button
□ SHAKE ALARM MODE	72. Press the Shake Alarm Mode button. Select Auto or Manual. This allows the user to select between auto or manual shake alarm cancellation.
SETUP COMPLETE RESTART THE SYSTEM ☑	73. Press the √ (check) button.
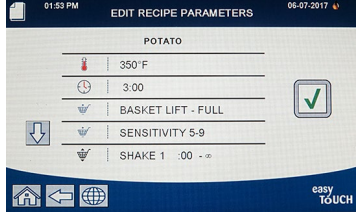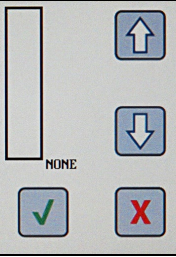
DISPLAY	ACTION
□ **DRAIN ALARM MODE**	74. Press the Drain Alarm Mode button. Select Auto or Manual. This allows the user to select between auto or manual drain alarm cancellation.
SETUP COMPLETE RESTART THE SYSTEM ✓	75. Press the √ (check) button.
□ **HOLD ALARM MODE**	76. Press the Hold Alarm Mode button. Select Auto or Manual. This allows the user to select between auto or manual hold alarm cancellation.
SETUP COMPLETE RESTART THE SYSTEM ✓	77. Press the √ (check) button.
□ **ALARM TIMER**	78. Press the Alarm Timer button. These settings allow the user to select the amount of time before auto cancelling the drain alarm timer or hold alarm timer. Default settings are 5 seconds.
SETUP COMPLETE RESTART THE SYSTEM ✓	79. Press the √ (check) button.
⇐	80. Press the Back button two (2) times.
□ **BASKET LIFT**	81. Press the Basket Lift button.
ON OFF	82. Select ON to enable the basket lift or OFF to disable the basket lift.
SETUP COMPLETE RESTART THE SYSTEM ✓	83. Press the √ (check) button.
⇩	84. Press the Down button.
□ **OIL DRAGOUT**	85. 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**	86. 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).
SETUP COMPLETE ✓	87. Press the √ (check) button when complete.
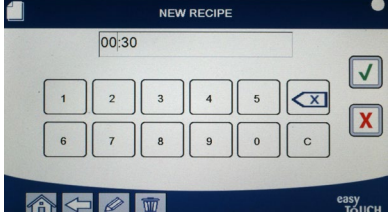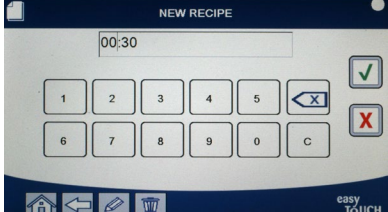
DISPLAY	ACTION
□ **FLOW ADJUST**	88. Enter the configurable flow rate (Default is 1) and press the √ (check) button. (Note: Enter values from 10-200 for ranges 0.10-2.00lbs).
SETUP COMPLETE ✓	89. Press the √ (check) button when complete.
⇐	90. Press the Back button.
⌂	91. Press the Home button.
CREW MODE	92. Press the Crew Mode button.
	93. Press and hold the momentary reset switch. Ensure the switch is pressed and held for one (1) minute. On gas units, the button is located under the far-left control box or under the USB slot. On electric units, the button is located on the rear of the control box behind the JIB reset switch or under the USB slot.
⏻	94. The system reboots in approximately 45 seconds and returns to off/standby mode.
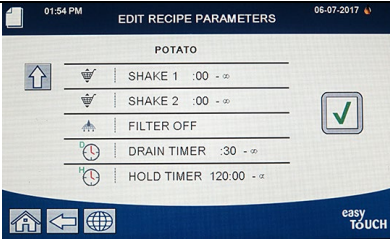
1.9 Adding or Editing Existing Products
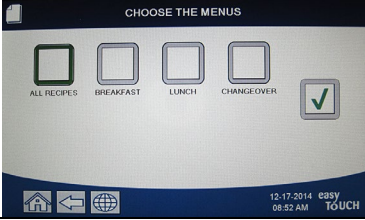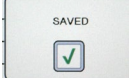
This function is used to add additional products or edit existing products.

DISPLAY	ACTION
⌂	1. Press the Home button.
📕	2. Press the Recipes button.
1 6 5 0	3. Enter **1650**
✓	4. Press the √ (check) button.
	5. Choose the product icon to edit or press the + to add a new product.
✏	6. Press the pencil icon at the bottom of the screen to edit an existing product.

DISPLAY	ACTION
	7. Enter or change the name of the product using the keyboard.
	8. Press the √ (check) button.
	9. This screen displays the current setpoint, cook time, basket lift, sensitivity, shake timers, filter settings, drain timer and hold timer. To edit a parameter, press the item to edit.
	10. To edit temperature, press the temp button.
	11. Use the keypad to enter or edit the cook temperature for the product. **NOTE: Ensure that the temperature is changed from 32˚F (0˚C) to 350˚F (177˚C).**
	12. Press the √ (check) button.
	13. Press the cook time button.
	14. Use the keypad to enter or edit the cook time in minutes and seconds.
	15. Press the √ (check) button.
	16. Press the Basket Lift button.
	17. Press the up/down arrows to select NONE if no basket lift is desired for this product; Option if the left or right basket lift should operate independently; or Full if both basket lifts should operate simultaneously for large baskets.
	18. Press the √ (check) button.

DISPLAY	ACTION
	19. Press the sensitivity (load compensation) button.
	20. 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.
	21. Press the √ (check) button.
	22. Press the Shake 1 Timer button.
	23. Enter the time in minutes and seconds for the first shake to be performed.
	24. Press the √ (check) button.
	25. Press the down arrow to scroll to more settings.
	26. Press the Shake 2 Timer button if an additional shake is needed, otherwise skip to step 29.
	27. Enter the time in minutes and seconds for the seconds shake to be performed.
	28. Press the √ (check) button.
	29. Press the Filter button.
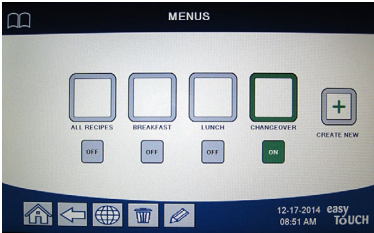
DISPLAY	ACTION
01:54 PM EDIT RECIPE PARAMETERS 06-07-2017 ON OFF easy TOUCH	30. Choose OFF to disable and prevent auto filtration or ON to enable auto filtration for this product.
D	31. Press the Drain Timer button.
NEW RECIPE 07:00 1 2 3 4 5 ⟨X⟩ √ 6 7 8 9 0 C X easy TOUCH	32. Enter the time in minutes and seconds for the product drain time.
√	33. Press the √ (check) button.
H	34. Press the Hold Timer button.
NEW RECIPE 07:00 1 2 3 4 5 ⟨X⟩ √ 6 7 8 9 0 C X easy TOUCH	35. Enter the time in minutes and seconds for the product hold time.
√	36. Press the √ (check) button.
01:54 PM EDIT RECIPE PARAMETERS 06-07-2017 POTATO SHAKE 1 :00 - ∞ SHAKE 2 :00 - ∞ FILTER OFF DRAIN TIMER :30 - ∞ HOLD TIMER 120:00 - ∝ easy TOUCH	37. Press the √ (check) button.
09:44 AM CHOOSE ICON FOR THE RECIPE 04-11-2017 easy TOUCH	38. Choose the icon to associate with the product recipe that is being entered or edited.
√	39. Press the √ (check) button.

1-22

DISPLAY	ACTION
	40. Choose the menu(s) to associate with the product recipe that is being entered or edited.
	41. Press the √ (check) button.
SAVED	42. The controller displays SAVED.
	43. Press the √ (check) button.
	44. Select another product to edit or press the + key to add additional products. If finished press the home button.
CREW MODE	45. Press the Crew Mode button to return to main screen.
	46. Associate the new programmed product to a button by pressing and holding an existing product button. The outline of the product button changes from green to red and then to solid red. Press the new desired product to assign to the button.

1.10 Adding or Editing Menus
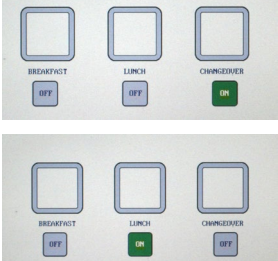
This function is used to add or edit menus. Menus allow the operator to group certain products together. For example, setting up a breakfast menu allows grouping of breakfast only products. This is helpful when switching products by narrowing the number of products to choose from.
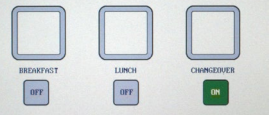
DISPLAY	ACTION
	1. Press the Home button.
	2. Press the Menus button.
1 6 5 0	3. Enter **1650**
	4. Press the √ (check) button.

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

1.11 Changing Menus

If separate menus are created for Breakfast and Lunch, 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 Breakfast or Lunch to switch menus. **NOTE:** Only one menu can be selected at a time.

DISPLAY	ACTION
	3. Once the desired menu is selected, "ON" is highlighted under the menu.
	4. Press the back button to return to the main screen.
	5. Press the product icon to switch products.
	6. Display returns to main screen.
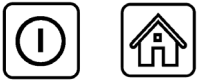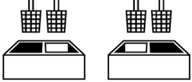
1.12 Service Tasks

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

1.12.1 High Limit Test

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

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

DISPLAY	ACTION
	1. With the controller at the off/standby position, press the Home button.
	2. Press the Service button.
	3. Press the Crew button.
	4. Select LEFT VAT or RIGHT VAT for split vats.
PRESS AND HOLD	5. Press and hold the Press and Hold button to begin high limit test.

DISPLAY	ACTION
RELEASE	6. While pressing and holding the button the vat begins to heat. The controller displays the actual vat temperature during the test. When the temperature reaches 410°F ± 10° F (210°C ± 12°C)*****, the controller displays HOT HI-1 (ex. 410F) and continues heating. *NOTE: In controllers used in the European Union (those with the CE mark), the temperature is 395°F (202°C) when the controller displays HOT HI-1.
HOT HI-1	7. While continuing to press and hold the button, the fryer continues heating until the high limit opens. Generally, this happens once the temperature reaches 423°F to 447°F (217°C to 231°C) for non-CE high limits and 405°F to 426°F (207°C to 219°C) for CE high limits.
HELP HI-2	8. Release the button. The vat stops heating and the controller displays the current temperature setting until the temperature cools below 400°F (204°C). Press the power button to cancel the alarm.
HIGH LIMIT FAILURE DISCONNECT POWER	9. If the controller displays this message, disconnect power to the fryer and immediately call for service.
⏻	10. After a high limit test, once the vat cools below 400°F (204°C), dispose of the oil.
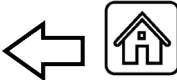
1.12.2 Manager Functions

1.12.2.1 E-Log

The E-LOG function is used to view the ten (10) most recent error codes encountered on the fryer. These codes are displayed with the most recent errors displayed first. The error code, time and date are displayed.
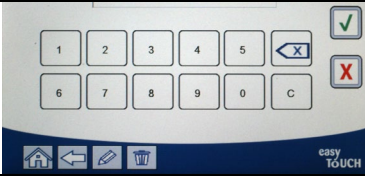
If no errors exist, the controller is blank in this function. Errors are displayed with the side of the error if a split vat, error code, time and date. An error code displaying an "L" indicates left side of a split vat while an "R" indicates right side of a split vat where the error occurred (R E19 06:34AM 04/22/2014). An error code displaying a "G" indicates this was a global error not specifically linked to a particular vat. Error codes are listed in section 3.2.5 of this manual.

DISPLAY	ACTION
⌂	1. Press the Home button.
✖	2. Press the Service button.
(Manager icon)	3. Press the Manager button.
1 6 5 6	4. Enter **1656**
✓	5. Press the √ (check) button.
□ **E-LOG**	6. Press the E-LOG button. The three most recent errors are shown.

DISPLAY	ACTION
⬇	7. Press the Down button. The next three errors are shown. Continue pressing the down arrow to view additional errors.
⬅ 🏠	8. Press the Back button to return to menu or press the Home button to exit.
CREW MODE	9. Press the Crew Mode button.

1.12.2.2 Passcode Setup

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

DISPLAY	ACTION
🏠	1. Press the Home button.
🛠	2. Press the Service button.
👤	3. Press the Manager button.
1 6 5 6	4. Enter **1656**
✓	5. Press the √ (check) button.
□ **PASSCODE SETUP**	6. Press the PASSCODE SETUP button.
□ **MENUS** □ **RECIPES** □ **SETTINGS MANAGER** □ **DIAGNOSTICS MANAGER**	7. Select the desired passcode to modify. Use the down arrow to scroll to additional setting. Defaults are: MENUS 1650 RECIPES 1650 SETTINGS MANAGER 1656 DIAGNOSTICS MANAGER 1656
	8. Use the keypad to enter new passcode for the selected item.
✓	9. Press the √ (check) button.
RETYPE PASSWORD	10. Use the keypad to enter the new passcode again to verify.
✓	11. Press the √ (check) button.
PASSCODE SETUP SUCCESSFUL ✓	12. Press the √ (check) button.

DISPLAY	ACTION
□ **MENUS** □ **RECIPES** □ **SETTINGS MANAGER** □ **DIAGNOSTICS MANAGER**	13. Press the Back button to return to menu or press the Home button to exit.
CREW MODE	14. Press the Crew Mode button.

1.12.2.3 USB – Menu Operation

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

DISPLAY	ACTION
	1. Press the Home button.
	2. Press the Service button.
	3. Press the Manager button.
1 6 5 6	4. Enter **1656**
	5. Press the √ (check) button.
□ **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.
UI-UI MENU DATA TRANSFER IN PROGRESS	11. No action required while the file is loading.
MENU UPGRADE IN PROGRESS	12. No action required while the upgrade is in progress.
UPGRADE COMPLETE? YES	13. Press YES.
MENU UPGRADE COMPLETED, REMOVE THE USB AND RESTART THE SYSTEM.	14. Remove the USB drive and power cycle the entire fryer battery using the reset switch behind the far-left fryer door below the USB connector. **NOTE: Ensure the switch is pressed and held for at least 30 seconds.**

1.13　Information Statistics

1.13.1　Report Card Statistics

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

DISPLAY	ACTION
🏠	1.　Press the Home button.
?	2.　Press the Information button.
A⁺	3.　Press the Report Card button.
□ **TODAY'S REPORT** □ **YESTERDAY'S REPORT** □ **WEEKLY REPORT**	4.　Select the desired report
	5.　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.
⬅ 🏠	6.　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.
?	2.　Press the Information button.
💧	3.　Press the Oil button.
1.　**LAST DISPOSE DATE** 2.　**COOKS SINCE LAST DISPOSE** 3.　**FILTERS SINCE LAST DISPOSE** 4.　**SKIPPED FILTERS SINCE LAST DISPOSE** ⬇	4.　Press the down arrow to scroll to more statistics.

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

1.13.4 Usage Statistics

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

DISPLAY	ACTION
	1. Press the Home button.
?	2. Press the Information button.

DISPLAY	ACTION
JAN **7**	3. 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)**	4. 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.
?	2. Press the Information button.
🌡	3. Press the Recovery button. The time is displayed in minutes and seconds.
1. **LAST RECOVERY TIME**	4. 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.
?	2. Press the Information button.
▒	3. Press the Filter button.
□ **DAY 1** □ **DAY 2** □ **DAY 3** □ **DAY 4**	4. Select and press the desired day. Press the down arrow to scroll back additional days.

DISPLAY	ACTION
⬇	
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.) ⬇	5. 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.) ⬆ ⬅	6. Press the up arrow to scroll up or the back button to return to select another day.
⬅ 🏠	7. 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.
?	2. Press the Information button.

DISPLAY	ACTION
⬇	3. Press the down arrow button.
🔍 1.1	4. Press Software Version button.
INITIALIZING ...	5. No action needed.
1. UIB SOFTWARE VERSION **2. SIB SOFTWARE VERSION** **3. VIB SOFTWARE VERSION** **4. FIB SOFTWARE VERSION** ⬇	6. 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** ⬆ ⬅ 🏠	7. Press the down arrow to scroll to additional software versions and information. 8. Press the up arrow to scroll up; the back button to return to menu or the home button to exit.

1.13.8 Reset Usage Statistics

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

DISPLAY	ACTION
🏠	1. Press the Home button.
?	2. Press the Information button.
⬇	3. Press the down arrow button.
↺	4. Press Reset button.
1 6 5 6	5. Enter **1656**
✓	6. Press the √ (check) button.

DISPLAY	ACTION
ALL USAGE DATA HAS BEEN RESET	7. Press the √ (check) button.
⬆ ⬅ 🏠	8. 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.
?	2. Press the Information button.
⬇	3. Press the down arrow button.
💧	4. Press the Fresh Oil button.
1. **NUMBER OF COOKS SINCE LAST DISPOSE** 2. **DISPOSE COUNT COOKS SINCE LAST RESET** 3. **FRESH OIL COUNTER RESET DATE** 4. **FRESH OIL COUNTER** ⬅ 🏠	5. 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.
?	2. Press the Information button.
⬇	3. Press the down arrow button.
↺	4. Press Fresh Oil Reset button.
1 6 5 6	5. Enter **1656**
✔	6. Press the √ (check) button.

DISPLAY	ACTION
FRESH OIL DATA HAS BEEN RESET ✓	7. Press the √ (check) button.
⬅ 🏠	8. 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.
?	2. Press the Information button.
🧺	3. Press the Last Load button.
1. LAST COOKED PRODUCT **2. LAST LOAD START TIME** **3. LAST LOAD COOK TIME** **4. LAST LOAD PROGRAM TIME** ⬇	4. 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 COOKS END**	5. Press the down arrow to scroll to more statistics.
⬆ ⬅ 🏠	6. 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).

DISPLAY	ACTION
🏠	1. Press the Home button.
?	2. Press the Information button.

DISPLAY	ACTION
⬇	3. Press the down arrow.
🌢	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.
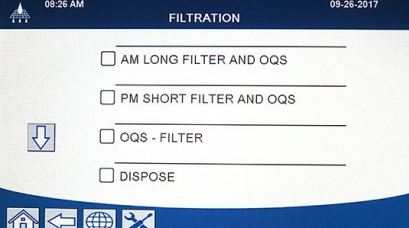
CHAPTER 2: FILTERQUICK™ FQ4000 TACO BELL FILTRATION MENU FUNCTIONS INSTRUCTIONS

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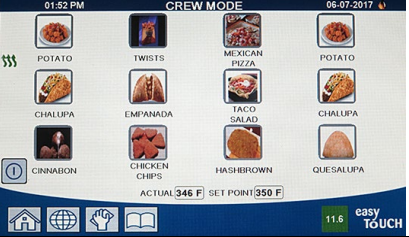
The filtration menu selections are used for filtering, draining, filling, disposing and cleaning the vats.

2.1.1 AM Long Filter (and OQS [if installed])

AM Long Filter is a function that automatically prompts to filter the frypots each day at 10:00AM or other prescribed time. This function can also be performed on demand as well. **Note**: Simultaneous filtering of multiple vats does not occur.

DISPLAY	ACTION
	1. The fryer **MUST** be at setpoint temperature. Press the filtration menu button. **NOTE:** If the filter is in delay mode, the filter button is illuminated yellow. Press the yellow button to continue.
	2. Select AM LONG FILTER AND OQS. **NOTE:** If the filter is in delay mode, the AM LONG FILTER AND OQS selection is illuminated yellow. Press the yellow button to continue.
AM LONG FILTER NOW?	3. Press the √ (check - YES) button to start filtration. If the X (NO) button is selected, filtering is delayed up to one (1) hour and the fryer resumes normal operation. After one-hour delay or at 11:00AM the fryer will shut off.
WEAR PROTECTIVE GLOVES PRESS CONFIRM WHEN COMPLETE	4. Press the √ (check - YES) button once protective gloves are in place to prevent injury.
REMOVE AND EMPTY CRUMB CATCH - PRESS CONFIRM WHEN COMPLETE	5. Remove and dump the crumb catch. This is critical to optimizing usable oil life and quality in the oil. Press the √ (check- YES) button when complete. ⚠ **DANGER** **When using a sediment basket, it MUST be removed and emptied prior and during each filtration. Some food particles can spontaneously combust if left soaking in certain shortening material.**
START FILTRATION	6. Press the BLUE button to start filtration.

DISPLAY	ACTION
DRAINING	7. No action required.
FLUSHING	8. No action required.
SCRUB INSIDE VAT PRESS CONFIRM WHEN COMPLETE	9. Scrub and clean the debris from the frypot walls. Press the √ (check - YES) button when complete.
FILTERING	10. No action required.
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.
MEASURING OIL QUALITY	13. No action required.
FILLING	14. No action required.
WEAR PROTECTIVE GLOVES PRESS CONFIRM WHEN COMPLETE	15. This message may appear if the oil doesn't return in a prescribed amount of time. Press the √ (check - YES) button once protective gloves are in place to prevent injury and follow the steps on the display to troubleshoot and return the oil.
11.6 21.1 28.3	16. 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 17. 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 19. If OQS = Number proceed to TPM - XX in step 18.
DISCARD SOON ✓	17. Press the √ (check -YES) button to continue. Skip to step 20.
TPM - XX	18. Press the √ (check - YES) button to continue. If the TPM reading is above OQS SETUP – DISCARD limits, proceed to step 19, otherwise proceed to step 20.
DISCARD NOW? ✓	19. Press the √ (check -YES) button to continue. Proceed to DISPOSE in section 2.1.4/5. Press X (NO) to delay the DISPOSE.
PREHEAT	20. No action required as the fryer heats to setpoint.

DISPLAY	ACTION
	21. 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.

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

⚠ **DANGER**

Keep <u>ALL</u> items out of drains. Closing actuators may cause damage or injury.

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

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**

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

⚠ **WARNING**

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

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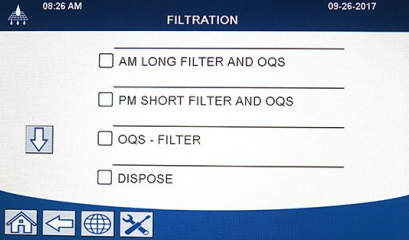
Use caution and wear appropriate safety equipment when resetting the filter motor reset switch. Resetting the switch must be accomplished with care to avoid the possibility of a serious burn from careless maneuvering around the drain tube and frypot.
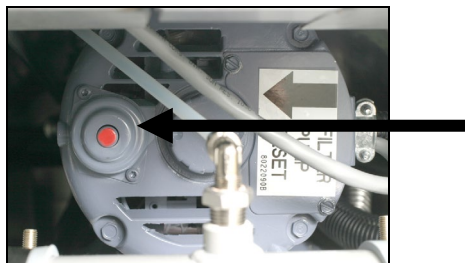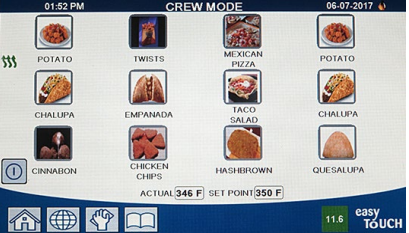
Filter Motor Reset Switch

2.1.2 PM Short Filter (and OQS [if installed])

PM Short Filter is a function that automatically prompts to filter the frypots each day at 8:00PM or other prescribed time. This function can also be performed on demand as well. **Note**: Simultaneous filtering of multiple vats does not occur.

DISPLAY	ACTION
	1. The fryer **MUST** be at setpoint temperature. Press the filtration menu button. **NOTE:** If the filter is in delay mode, the filter button is illuminated yellow. Press the yellow button to continue.
	2. Select PM SHORT FILTER AND OQS. **NOTE:** If the filter is in delay mode, the PM SHORT FILTER AND OQS selection is illuminated yellow. Press the yellow button to continue.
PM SHORT FILTER NOW?	3. Press the √ (check - YES) button to start filtration. If the X (NO) button is selected, filtering is delayed up to one (1) hour and the fryer resumes normal operation. After one-hour delay or at 9:00PM the fryer will shut off.
WEAR PROTECTIVE GLOVES PRESS CONFIRM WHEN COMPLETE	4. Press the √ (check - YES) button once protective gloves are in place to prevent injury.
REMOVE AND EMPTY CRUMB CATCH - PRESS CONFIRM WHEN COMPLETE 	5. Remove and dump the crumb catch. This is critical to optimizing usable oil life and quality in the oil. Press the √ (check- YES) button when complete. ⚠ **DANGER** **When using a sediment basket, it MUST be removed and emptied prior and during each filtration. Some food particles can spontaneously combust if left soaking in certain shortening material.**
START FILTRATION 	6. Press the BLUE button to start filtration.
DRAINING	7. No action required.
FILTERING	8. No action required.
ALERT DRAIN CLOSING REMOVE TOOLS	9. 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.**

DISPLAY	ACTION
FILLING	10. No action required.
MEASURING OIL QUALITY	11. No action required.
FILLING	12. No action required.
WEAR PROTECTIVE GLOVES PRESS CONFIRM WHEN COMPLETE	13. This message may appear if the oil doesn't return in a prescribed amount of time. Press the √ (check - YES) button once protective gloves are in place to prevent injury and follow the steps on the display to troubleshoot and return the oil.
11.6 21.1 28.3	14. 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 18. 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 15. 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 17. If OQS = Number proceed to TPM - XX in step 16.
DISCARD SOON ✓	15. Press the √ (check -YES) button to continue. Skip to step 18
TPM - XX	16. Press the √ (check - YES) button to continue. If the TPM reading is above OQS SETUP – DISCARD limits, proceed to step 17, otherwise proceed to step18.
DISCARD NOW ✓	17. Press the √ (check -YES) button to continue. Proceed to DISPOSE in section 2.1.4/5. Press X (NO) to delay the DISPOSE.
PREHEAT	18. No action required as the fryer heats to setpoint.
	19. 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.

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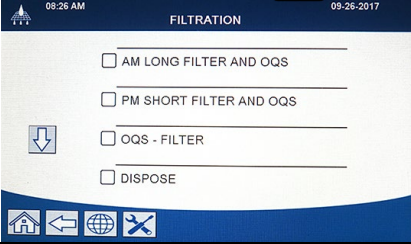
The OQS filter is a function that filters the vat that takes an oil reading to test the TPM (Total Polar Materials) in the oil using the built in OQS sensor. This function is used to determine when the oil has reached the end of its life and when to dispose. Ensure that the filter pad or paper is replaced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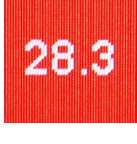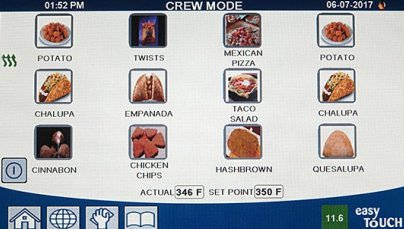
NOTICE
The filter pad or paper MUST be replaced daily.

⚠ WARNING
DO NOT drain more than one frypot at a time into the built-in filtration unit to avoid overflow and spillage of hot oil that may cause severe burns, slipping and falling.
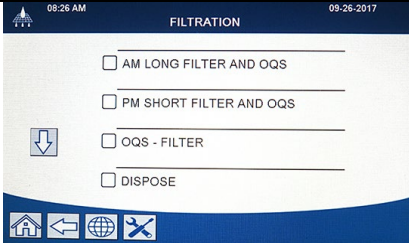
DISPLAY	ACTION
	1. The fryer **MUST** be at setpoint temperature. Press the filtration menu button.
	2. Select OQS (Oil Quality Sensor) - FILTER.
OQS – FILTER NOW?	3. Press the √ (check - YES) button to start filtration. If the X (NO) button is selected, filtering is cancelled and the fryer resumes normal operation.
WEAR PROTECTIVE GLOVES PRESS CONFIRM WHEN COMPLETE	4. Press the √ (check - YES) button once protective gloves are in place to prevent injury.
REMOVE AND EMPTY CRUMB CATCH - PRESS CONFIRM WHEN COMPLETE ✓	5. Remove and dump the crumb catch. This is critical to optimizing usable oil life and quality in the oil. Press the √ (check- YES) button when complete. **⚠ DANGER** **When using a sediment basket, it MUST be removed and emptied prior and during each filtration. Some food particles can spontaneously combust if left soaking in certain shortening material.**
START FILTRATION 🔵	6. Press the BLUE button to start filtration.
DRAINING	7. No action required as oil drains into filter pan.
FLUSHING	8. No action required.

DISPLAY	ACTION
ALERT DRAIN CLOSING REMOVE TOOLS	9. Ensure that all tools are removed from the frypot prior to the drain closing to prevent damage to the drain.
	⚠ **DANGER** **Keep <u>ALL</u> items out of drains. Closing actuators may cause damage or injury.**
FILLING	10. No action required while the vat is refilled.
MEASURING OIL QUALITY	11. No action required while the OQS sensor calculates the oil quality value of the oil.
FILLING	12. No action required.
WEAR PROTECTIVE GLOVES PRESS CONFIRM WHEN COMPLETE	13. This message may appear if the oil doesn't return in a prescribed amount of time. Press the √ (check - YES) button once protective gloves are in place to prevent injury and follow the steps on the display to troubleshoot and return the oil.
11.6 **21.1** **28.3**	14. 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 18. 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 15. 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 17. If OQS = Number proceed to TPM - XX in step 16.
DISCARD SOON ✓	15. Press the √ (check -YES) button to continue. Skip to step 18
TPM - XX	16. Press the √ (check - YES) button to continue. If the TPM reading is above OQS SETUP – DISCARD limits, proceed to step 17, otherwise proceed to step 18.
DISCARD NOW ✓	17. Press the √ (check -YES) button to continue. Proceed to DISPOSE in section 2.1.4/5. Press X (NO) to delay the DISPOSE.
PREHEAT	18. No action required as the fryer heats to setpoint.
	19. 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.

2.1.4 Dispose for Non-Bulk Oil Systems / Fill from JIB

This option is used to dispose of old oil into either an ODC, 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 an Oil Disposal Caddy (ODC), Shortening Disposal Unit (SDU). Refer to the documentation furnished with your disposal unit for specific operating instructions. **NOTE:** If using an SDU built prior to 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 DISPOSE.
DISPOSE NOW?	3. Press the √ (check - YES) button to start dispose. If the X (NO) button is selected, dispose is cancelled and the fryer resumes normal operation.
WEAR PROTECTIVE GLOVES PRESS CONFIRM WHEN COMPLETE	4. Press the √ (check - YES) button once protective gloves are in place to prevent injury.
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.**
INSERT DISPOSAL UNIT	6. Insert the disposal unit. ⚠ **DANGER** **When draining oil into a disposal unit, DO NOT fill above the maximum fill line located on the container.**
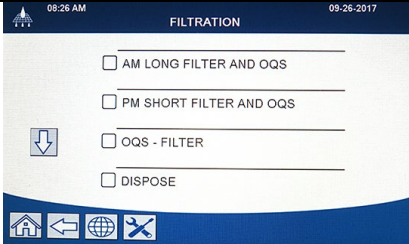
DISPLAY	ACTION
IS DISPOSE UNIT IN PLACE?	7. Ensure the ODC, SDU or a METAL container with a capacity of FOUR gallons (15 liters) or larger is in place. Press the √ (check - YES) button to continue. ⚠ **DANGER** **Allow oil to cool to 100°F (38°C) before draining into an appropriate METAL container for disposal.** ⚠ **DANGER** **When draining oil into a disposal unit, <u>DO NOT</u> fill above the maximum fill line located on the container.** ⚠ **DANGER** **When draining oil into an appropriate ODC, 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 ⬤	8. Press the BLUE button to start draining.
DISPOSING	9. No action is required while the vat disposes the oil.
VAT EMPTY?	10. Once the vat is empty, press the √ (check - YES) button to continue.
CLEAN VAT COMPLETE?	11. Clean the vat with a scrub brush and when complete press the √ (check - YES) button to continue.
ALERT DRAIN CLOSING REMOVE TOOLS	12. Ensure that all tools are removed from the frypot prior to the drain closing to prevent damage to the drain. ⚠ **DANGER** **Keep <u>ALL</u> items out of drains. Closing actuators may cause damage or injury.**
REMOVE DISPOSAL UNIT?	13. Remove the disposal unit and press the √ (check - YES) button to continue.
INSERT PAN	14. Insert the clean and assembled filter pan into place.
MANUALLY FILL VAT	15. 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.
⏻	16. The controller switches off.

2.1.5 Dispose for Bulk Oil Waste Systems

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

<table>
<tr><td colspan="2">⚠ 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.</td></tr>
</table>
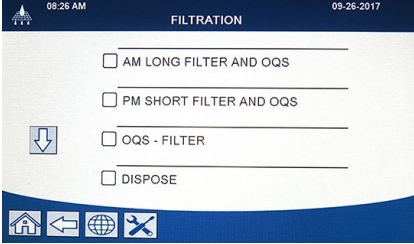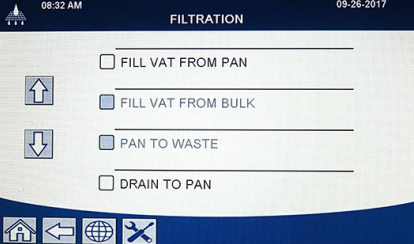
DISPLAY	ACTION
	1. Press the filtration menu button.
	2. Select DISPOSE.
DISPOSE NOW?	3. Press the √ (check - YES) button to continue. If the X (NO) button is selected, dispose is cancelled and the fryer resumes normal operation.
WEAR PROTECTIVE GLOVES PRESS CONFIRM WHEN COMPLETE	4. Press the √ (check - YES) button once protective gloves are in place to prevent injury.
START DISPOSE	5. Press the BLUE button to start draining.
BULK TANK FULL?	6. 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.
DRAINING	7. No action required as oil drains into filter pan.
VAT EMPTY?	8. Once the vat is empty, press the √ (check - YES) button to continue.
CLEAN VAT COMPLETE?	9. Clean the vat with a scrub brush and when complete 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.

DISPLAY	ACTION
OPEN DISPOSE VALVE	11. Open the left cabinet door and unlock the valve if necessary. Pull the dispose valve completely forward to start disposal.
DISPOSING	12. 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	13. 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?	14. 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 12.
INSERT PAN	15. Insert the filter pan.
CLOSE DISPOSE VALVE	16. 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 21. If using a bulk fresh oil system type, continue to next step.
FILL VAT FROM BULK?	17. 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	18. Press and hold the button to fill the vat. The bulk oil refill pump uses a momentary switch. It only pumps while the switch is depressed.
RELEASE BUTTON WHEN FULL	19. Release the button when the vat is filled to the lower fill line.
CONTINUE FILLING?	20. Press the √ (check - YES) button to continue filling. Otherwise press the X (NO) button once the vat is full, to exit and continue to step 21.
MANUALLY FILL VAT	21. 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.
⏻	22. The controller switches off.

2.1.6 Fill Vat from (Filter) Pan
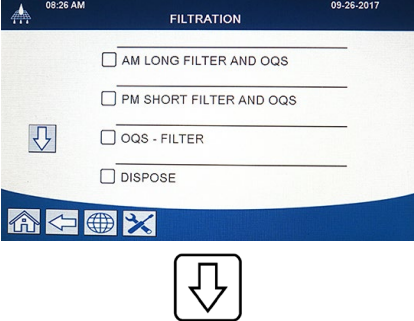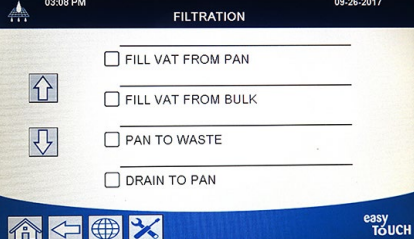
The fill vat from pan function fills the vat from the filter pan.

DISPLAY	ACTION
	1. The fryer **MUST** be OFF.
	2. Press the filtration menu button
	3. Press the down arrow.
	4. Select FILL VAT FROM PAN. If no pan is detected, the controller displays INSERT PAN until the pan is detected.
FILL FROM PAN?	5. Press the √ (check - YES) button to continue. If the X (NO) button is selected, the controller goes to OFF. If no pan is detected, the controller displays INSERT PAN until the filter pan is detected.
FILLING	6. No action is required while the vat is filling.
IS FRYPOT FULL OF OIL?	7. Press the X (NO) button to run the pump again if the oil level is below the top oil level full line. Press the √ (check - YES) button once the vat is full and to return to OFF.
	8. The controller switches off.

2.1.7 Fill Vat from Bulk (Bulk Only)

The fill vat from bulk function is used to fill the vat from a bulk oil fresh source.
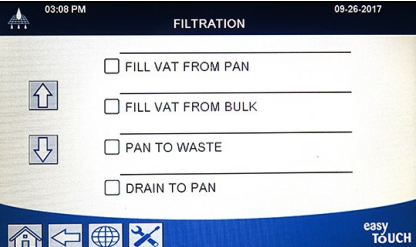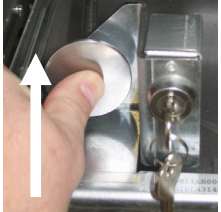
DISPLAY	ACTION
	1. The fryer **MUST** be OFF.
	2. Press the filtration menu button

DISPLAY	ACTION
	3. Press the down arrow.
	4. Select FILL VAT FROM BULK.
FILL VAT FROM BULK?	5. Press the √ (check - YES) button to continue. If the X (NO) button is selected, the controller goes to OFF.
START FILLING? PRESS AND HOLD	6. Press and hold the button to fill the vat. The bulk oil refill pump uses a momentary switch. It only pumps while the switch is depressed.
RELEASE BUTTON WHEN FULL	7. Release the button when the vat is filled to the lower fill line.
CONTINUE FILLING?	8. Press the √ (check - YES) button to continue filling. Otherwise press the X (NO) button once the vat is full.
	9. The controller switches off.

2.1.8 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.
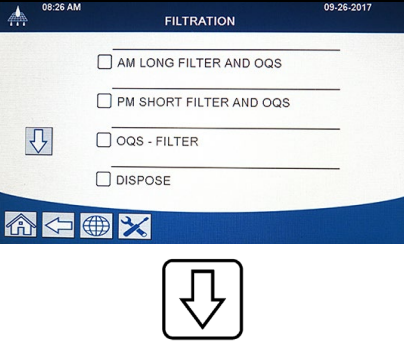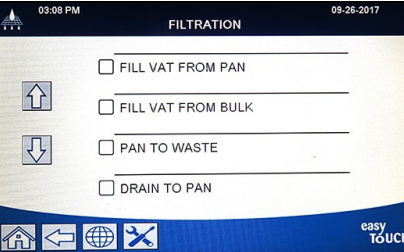
DISPLAY	ACTION
	1. Press the filtration menu button.

DISPLAY	ACTION
	2. Press the down arrow.
	3. Select PAN TO WASTE.
PAN TO WASTE?	4. Press the √ (check - YES) button to continue. If the X (NO) button is selected, the function is cancelled and the fryer resumes normal operation. If no pan is detected, the controller displays INSERT PAN until the pan is detected.
BULK TANK FULL?	5. Press the √ (check - YES) button to acknowledge and call the bulk oil waste provider. The display returns to OFF.
OPEN DISPOSE VALVE	6. Open the left cabinet door and unlock the valve if necessary. Pull the dispose valve completely forward to start disposal.
DISPOSING	7. 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	8. 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?	9. 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 7.
INSERT PAN	10. Insert the filter pan.
CLOSE DISPOSE VALVE	11. Close the dispose valve by pushing the valve handle toward the rear of the fryer until it stops. Relock the valve if required.

DISPLAY	ACTION
⏻	12. The controller switches off.

2.1.9 Drain to Pan

The drain to pan function drains the oil from the vat to the filter pan.
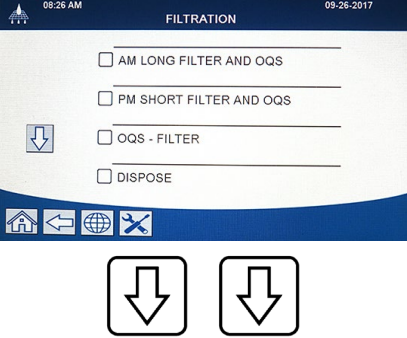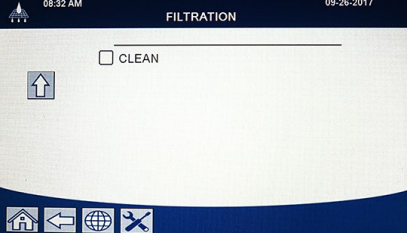
DISPLAY	ACTION
	1. Press the filtration menu button.
	2. Press the down arrow.
	3. Select DRAIN TO PAN.
DRAIN NOW?	4. Press the √ (check - YES) button to continue. If the X (NO) button is selected, the controller goes to OFF.
WEAR PROTECTIVE GLOVES PRESS CONFIRM WHEN COMPLETE	5. Press the √ (check - YES) button once protective gloves are in place to prevent injury.
START DRAINING ●	6. Press the BLUE button to start draining.
INSERT PAN	7. Push the filter pan fully into place. Displayed if the filter pan is not fully engaged.
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.

DISPLAY	ACTION
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 15. If bulk 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 and return to previous step. Press the √ (check - YES) button once the vat is full and skip to step 18 to return to OFF.
PAN TO WASTE?	14. Press the √ (check - YES) button to dispose of the oil to the bulk oil waste tanks. Skip to section 2.1.8 PAN TO WASTE step 4. Otherwise skip to step 15.
REMOVE PAN	15. 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?	16. **NOTE**: A small quantity of oil may remain in the pan after refilling. If the filter pan is empty press the √ (check - YES) button and continue to next step. If the pan is not empty, press the X (NO) button and return to FILL FROM PAN? in step 11. If the pan is not empty and the fryer is using a bulk oil system, press the X (NO) button and continue to step 17.
INSERT PAN	17. Insert the filter pan.
⏻	18. The controller switches off.

2.1.10   Clean for Non-Bulk Oil Systems

The clean mode is used to remove carbonized oil from the frypot.

DISPLAY	ACTION
	1. Press the filtration menu button.

DISPLAY	ACTION
08:26 AM FILTRATION 09-26-2017 ☐ AM LONG FILTER AND OQS ☐ PM SHORT FILTER AND OQS ⬇ ☐ OQS - FILTER ☐ DISPOSE 🏠 ⬅ 🌐 ✕ ⬇ ⬇	2. Press the down arrow two (2) times.
08:32 AM FILTRATION 09-26-2017 ☐ CLEAN ⬆ 🏠 ⬅ 🌐 ✕	3. Select CLEAN.
COLD CLEAN NOW?	4. Press the √ (check - YES) button to continue. If the X (NO) button is selected, the user returns to the filtration menu. If no pan is detected, the controller displays INSERT PAN until the pan is detected.
REMOVE FILTER PAN	6. 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?	7. If the filter pan is empty press the √ (check - YES) button and proceed to the next step. If the pan is not empty, press the X (NO) button. The clean function is cancelled and returns to the filtration menu. Remove the oil from the pan and after inserting the filter pan, retry the function. If no pan is detected, the controller displays INSERT PAN until the pan is detected.
IS VAT OIL REMOVED?	8. Press the X (NO) button if oil is in the vat. Press the √ (check - YES) button if the vat is empty and skip to step 13.
INSERT DISPOSAL UNIT	9. Remove the filter pan and insert the disposal unit. ⚠ **DANGER** **Ensure an ODC (Oil Disposal Caddy), 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.**

2-17

DISPLAY	ACTION
IS DISPOSE UNIT IN PLACE?	10. Ensure the ODC, SDU or a METAL container with a capacity of FOUR (4) 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.** ⚠ **DANGER** **When draining oil into an appropriate ODC, SDU or METAL container, make sure the container will hold at least FOUR (4) gallons (15 liters) or more. Otherwise, oil could overflow and can cause injury.**
DRAINING	11. No action is required while the vat drains the oil into the disposal container.
VAT EMPTY?	12. Once the vat is empty, press the √ (check - YES) button to continue.
SOLUTION ADDED?	13. Fill the vat to be cleaned with water and cleaning solution mix. Press the √ (check - YES) button to start the cleaning procedure.
COLD CLEAN	14. Scrub the vat and then let the solution soak while the cold clean counts down.
COLD CLEAN DONE	15. Press the √ (check - YES) button to silence the alarm.
CLEANING COMPLETE?	16. Press the √ (check - YES) button once the vat is scrubbed.
INSERT PAN	17. Insert the filter pan.
DRAINING	18. No action is required while the vat drains.
RINSE COMPLETE?	19. Rinse excess solution from vat. Press the √ (check - YES) button when the vat is completely rinsed.
REMOVE PAN	20. Remove the filter pan.
VAT AND PAN DRY?	21. Ensure the vat and filter pan are clean and completely dry. Reassemble the filter pan with filter pan components and filter paper/pad. 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.**

DISPLAY	ACTION
ALERT DRAIN CLOSING REMOVE TOOLS	22. 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.**
INSERT PAN	23. Insert the filter pan into the fryer.
MANUALLY FILL VAT	24. Carefully pour oil into the vat until it reaches the low-level fill line in the fryer. Press the √ (check - YES) button once the vat is full.
⏻	25. The controller switches off.

2.1.11 Clean for Bulk Dispose Waste Oil Systems
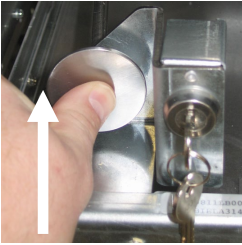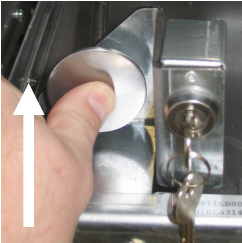
The clean mode is used to remove carbonized oil from the frypot.

⚠ **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. Press the down arrow two (2) times.
	3. Select CLEAN.

DISPLAY	ACTION
COLD CLEAN NOW?	4. Press the √ (check - YES) button to continue. If the X (NO) button is selected, the user returns to the filtration menu.
SAVING OIL?	5. Press the √ (check - YES) button to save the oil and continue. Press the X (NO) button if disposing the oil and proceed to step 10.
REMOVE FILTER PAN	6. 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?	7. If the filter pan is empty press the √ (check - YES) button and proceed to the next step. If the pan is not empty, press the X (NO) button and go to the next step.
EMPTY FILTER PAN	8. Remove the oil from the pan and press the √ (check - YES) button after inserting the filter pan, retry the function.
INSERT PAN	9. Push the filter pan fully into place. Displayed if the filter pan is not fully engaged.
BULK TANK FULL?	10. This message is only displayed if the bulk tank on bulk waste systems is full. Press the √ (check - YES) button to acknowledge and call the bulk oil waste provider. The display returns to OFF.
IS VAT OIL REMOVED?	11. Press the X (NO) button if oil is in the vat. Press the √ (check - YES) button if the vat is empty and skip to step 23.
DRAINING	12. No action required as oil drains into filter pan.
IS FRYPOT EMPTY?	13. Once the frypot is empty, press the √ (check - YES) button to continue. If disposing to bulk skip to step 16.
CLEAN VAT COMPLETE?	14. Clean the vat with a scrub brush and when complete press the √ (check - YES) button to continue.
REMOVE FILTER PAN	15. Carefully pull the filter pan from the fryer and proceed to step 23. ⚠ **DANGER** **Remove the filter pan slowly to avoid splashing of hot oil that may cause severe burns, slipping and falling.**
OPEN DISPOSE VALVE 	16. Open the left cabinet door and unlock the valve if necessary. Pull the dispose valve completely forward to start disposal.

DISPLAY	ACTION
DISPOSING CLOSE DISPOSE VALVE WHEN FULL	17. No action is required while the pump transfers the waste oil from the pan to the front dispose container. Close the dispose valve when full by pushing the valve handle toward the rear of the fryer until it stops. Relock the valve if required. Skip to step 19.
DISPOSING	18. No action is required while the pump transfers the waste oil from the pan to the bulk oil waste tanks for four (4) minutes.
REMOVE PAN	19. 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?	20. If the filter pan is empty press the √ (check - YES) button. If the pan is not empty, press the X (NO) button; insert the filter pan and return to step 13.
INSERT PAN	21. Insert the filter pan. If disposing to bulk continue to next step.
CLOSE DISPOSE VALVE	22. Close the dispose valve by pushing the valve handle toward the rear of the fryer until it stops. Relock the valve if required by your manager.
SOLUTION ADDED?	23. Fill the vat to be cleaned with water and cleaning solution mix. Press the √ (check – YES) button to start the cleaning procedure.
CLEANING	24. Scrub the vat and then let the solution soak while the cold clean timer counts down for one hour.
CLEAN DONE	25. Press the √ (check - YES) button to silence the alarm.
IS CLEANING DISPOSAL UNIT IN PLACE?	26. Press the √ (check - YES) button once the cleaning disposal unit is in place.
DRAINING	27. No action is required while the vat drains.
RINSE COMPLETE?	28. Rinse excess solution from vat. Press the √ (check - YES) button when the vat is completely rinsed.
IS SOLUTION REMOVED?	29. Press the √ (check - YES) button once the solution is removed.

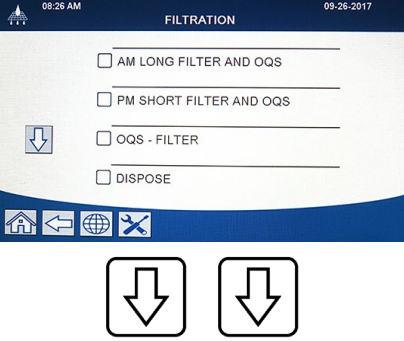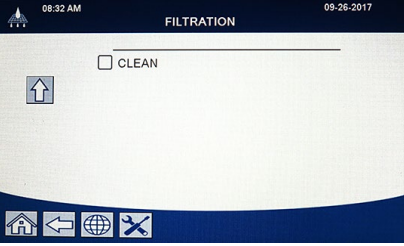| DISPLAY	ACTION
ALERT DRAIN CLOSING REMOVE TOOLS	30. Ensure that all tools are removed from the frypot prior to the drain closing to prevent damage to the drain. ⚠ **DANGER** **Keep all items out of drains. Closing actuators may cause damage or injury.**
REMOVE THE CLEANING SOLUTION UNIT	31. Press the √ (check - YES) button once the cleaning solution unit is removed.
IS FRYPOT DRY?	32. Ensure the frypot is completely dry and 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.**
RETURN SAVED OIL?	33. Press the √ (check - YES) button to return saved oil.
INSERT FILTER PAN	34. Insert the filter pan.
FILL FRYPOT FROM PAN	35. Press the √ (check - YES) button to fill the frypot.
FILLING	36. No action is required while the vat is filling.
IS FRYPOT FULL OF OIL?	37. Press the X (NO) button to run the pump again if the oil level is below the top oil level full line. Press the √ (check - YES) button once the vat is full and to return to OFF.
REMOVE FILTER PAN	38. Remove the filter pan.
CLEAN FILTER PAN?	39. Clean the filter pan and press the √ (check - YES) button when complete.
IS FILTER PAN DRY?	40. Ensure the filter pan is completely dry. Reassemble the filter pan with filter pan components and filter paper/pad. 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	41. Insert the filter pan and proceed to step 50 to exit and return to OFF.
VAT AND PAN DRY?	42. Ensure the vat and filter pan are completely dry. Reassemble the filter pan with filter pan components and filter paper/pad. 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.**

DISPLAY	ACTION
ALERT DRAIN CLOSING REMOVE TOOLS	43. 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.**
INSERT PAN	44. Insert the filter pan. 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?	45. 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	46. 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	47. Release the button when the vat is filled to the lower fill line.
CONTINUE FILLING?	48. 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	49. 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.
⏻	50. The controller switches off.

CHAPTER 3: FILTERQUICK™ FQ4000 TACO BELL 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 another component	A. Verify that the fryer is plugged in and that the circuit breaker is not tripped. B. Call your FAS for assistance.
Controller locks up.	Controller error.	Remove and restore power to the controller. If problem persists, call your FAS for assistance.
FQ4000 displays SAFE MODE HEATING IN PROGRESS.	A. Normal display when the fryer is heating. B. Low oil level.	A. No action required. B. Ensure the oil level is at the top oil level line or between the two lines.
FQ4000 displays LOW OIL DETECTED OIL MUST BE ABOVE THE LOWER FILL LINE	Displayed when the fryer detects a low oil condition.	Press the √ (check - YES) button. Follow prompts to fill the frypot.
FQ4000 displays TOP OFF OIL EMPTY	Displayed when the fryer detects the top oil is empty.	Change the JIB and press and hold the ORANGE reset button for five (5) seconds. If displayed during startup, follow prompts to fill the frypot.
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 TEMPERATURE 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 Filtration

PROBLEM	PROBABLE CAUSES	CORRECTIVE ACTION
SAFE MODE – E81 SAFE MODE FAILURE TECHNICAL SUPPORT REQUIRED 1-800-421-4101 ENTER PASSCODE	The oil level is low in the vat.	Check the filter pan to ensure all the oil returned to the vat. Ensure the oil level is at the top oil level line or between the two lines. Turn fryer off, add oil to the top oil level line. Turn fryer back on. **Enter code 4357 if prompted.** Call 1-800-421-4101 if necessary.
FQ4000 displays IS VAT FULL? YES NO after a filtration.	A. Normal operation during some 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 √ (check - YES) 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 √ (check - YES) button. Filtration will resume.

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.
FQ4000 displays DO NOT TURN ON FRYER UNLESS FRYPOT IS FULL OF OIL. DO YOU WANT TO TURN FRYER ON? YES NO during or after a filtration.	Displayed when the oil does not return to the frypot within a prescribed amount of time. This could be due to a clogged or dirty filter.	Clean or change the filter and ensure the frypot is full of oil above the lower oil fill line and press the √ (check - YES) button to turn the fryer on.
FQ4000 displays LOW OIL LEVEL DETECTED. OIL MUST BE ABOVE THE LOWER FILL LINE. FILL FRYPOT WITH OIL BEFORE TURNING ON FRYER.	Displayed when the fryer detects a low oil condition.	Ensure the frypot is full of oil and press the √ (check - COMPLETED) button.
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.
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.
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.

PROBLEM	PROBABLE CAUSES	CORRECTIVE ACTION
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.
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.

Code	ERROR MESSAGE	EXPLANATION
E19	HEATING FAILURE – XXX F or XXX C	Heating Control latch circuit failed. Heat Contactor failed to latch.
E25	HEATING FAILURE - BLOWER	The air pressure switch(s) failed to close.
E27	HEATING FAILURE - PRESSURE SWITCH - CALL SERVICE	The air pressure switch has failed closed.
E28	HEATING FAILURE – XXX F or XXX C	The fryer has failed to ignite and has locked out the ignition module.
E29	TOP OFF PROBE FAILURE - CALL SERVICE	ATO RTD reading out of range. Call service
E32	DRAIN VALVE NOT OPEN - FILTRATION AND TOP OFF DISABLED - CALL SERVICE	Drain valve was trying to open and confirmation is missing
E33	DRAIN VALVE NOT CLOSED - FILTRATION AND TOP OFF DISABLED - CALL SERVICE	Drain valve was trying to close and confirmation is missing
E34	RETURN VALVE NOT OPEN - FILTRATION AND TOP OFF DISABLED - CALL SERVICE	Return valve was trying to open and confirmation is missing
E35	RETURN VALVE NOT CLOSED - FILTRATION AND TOP OFF DISABLED - CALL SERVICE	Return valve was trying to close and confirmation is missing
E36	VALVE INTERFACE BOARD FAILURE - FILTRATION AND TOP OFF DISABLED - CALL SERVICE	Valve Interface Board connections lost or board failure. Call service.
E37	AUTOMATIC INTERMITTENT FILTRATION PROBE FAILURE - FILTRATION DISABLED - CALL SERVICE	AIF RTD reading out of range. Call service.
E39	CHANGE FILTER PAD	25-hour timer has expired or dirty filter logic has activated. Change the filter paper or pad.
E41	OIL IN PAN ERROR	The system detects that oil may be present in the filter pan.
E42	CLOGGED DRAIN (Gas)	Vat did not empty during filtration. Ensure the drain is not clogged and follow prompts.
E43	OIL SENSOR FAILURE - CALL SERVICE	Oil level sensor may have failed. Call service.
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.

Code	ERROR MESSAGE	EXPLANATION
E54	USB ERROR	USB connection lost during an update.
E55	SYSTEM INTERFACE BOARD 2 MISSING - CALL SERVICE	SIB board 2 connection lost or board failure. Call service.
E61	MISCONFIGURED ENERGY TYPE	The fryer is configured for the incorrect energy type. Call service.
E62	VAT NOT HEATING – CHECK ENERGY SOURCE – XXXF OR XXXC	The vat is not heating properly.
E63	RATE OF RISE	Rate of rise error occurred during a recovery test. Ensure the oil level is at the bottom oil level when cold and at the top oil level line when at setpoint. On electric fryers ensure the probe is not touching the elements.
E64	FILTRATION INTERFACE BOARD FAILURE - FILTRATION AND TOP OFF DISABLED - CALL SERVICE	Filtration Interface Board connections lost or board failure. Call service.
E65	CLEAN OIB SENSOR – XXX F OR XXX C - CALL SERVICE	Gas -The oil is back sensor does not detect oil. Clean optional oil sensor.
E66	DRAIN VALVE OPEN – XXXF OR XXXC	Drain valve is opened during cooking.
E67	SYSTEM INTERFACE BOARD NOT CONFIGURED - CALL SERVICE	Controller is turned on when the SIB board is not configured. Call service.
E68	OIB FUSE TRIPPED – CALL SERVICE	The VIB board OIB fuse has tripped and didn't reset. Call service.
E69	RECIPES NOT AVAILABLE – CALL SERVICE	The controller has not been programmed with product recipes. Replace controller with factory programmed controller.
E70	OQS TEMP HIGH	Oil temperature is too high for a valid OQS reading. Filter at a temperature between 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

Code	ERROR MESSAGE	EXPLANATION
		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. Turn the fryer off. Ensure the fryer has oil to the bottom fill line or higher. If not, add oil to the bottom fill line. Turn fryer back on. **If prompted, enter code 4357**. If issue continues contact a FAS.

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