FilterQuick™

Controller Version 2 (For push button FilterQuick™ fryers)

Operation Manual

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

8197206

Part Number: FRY_IOM_8197206 03/2016

Original Instructions

NOTICE

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

NOTICE

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

NOTICE

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

NOTICE TO OWNERS OF UNITS EQUIPPED WITH CONTROLLERS

U.S.

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

CANADA

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

Cet appareil 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 a 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 solution into an SDU. Boil-out solution can cause damage to an SDU 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 or FQG30 fryers, or EIGHT gallons (30 liters) or more for 1814E or 1814G 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 or FQG30 fryers, or EIGHT gallons (30 liters) or more for 1814E or 1814G fryers. Otherwise boil out solution could overflow and can cause injury.

⚠ DANGER

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

⚠ DANGER

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

⚠ WARNING

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

⚠ DANGER

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

⚠ WARNING

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

⚠ WARNING

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

⚠ DANGER

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

⚠ WARNING

Never operate the filter system without oil in the system.

⚠ WARNING

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

⚠ WARNING

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

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Controller Manual
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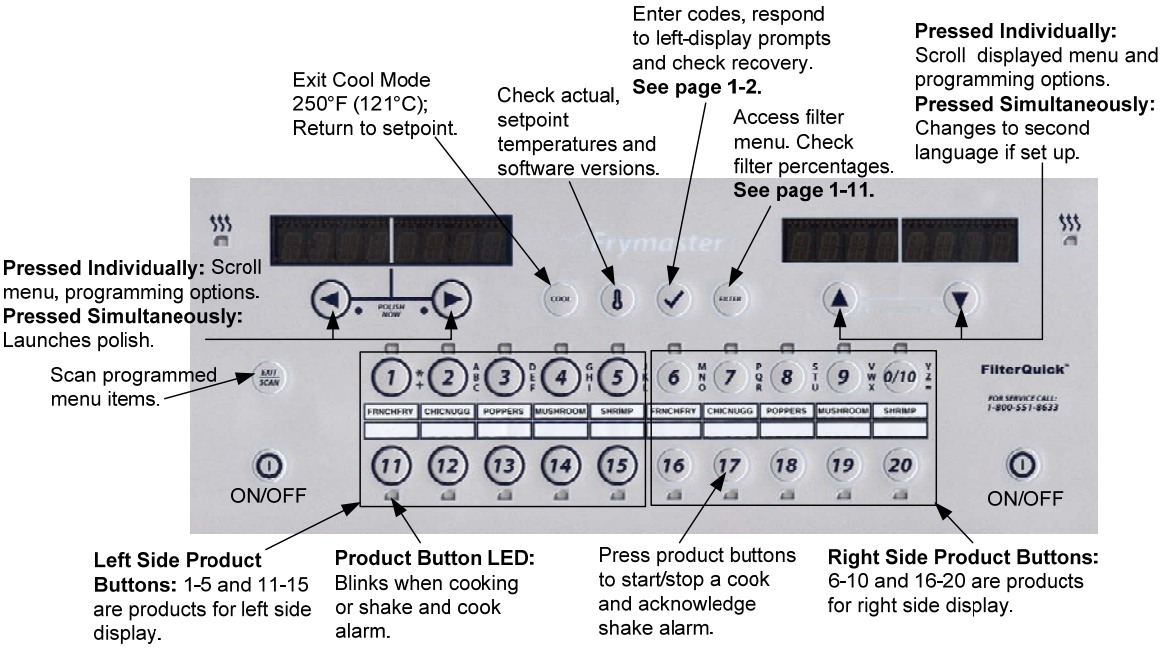
CHAPTER 1: FILTERQUICK™ CONTROLLER INSTRUCTIONS

1.1 Using the FilterQuick™ Controller



ON/OFF

- Press ON/OFF button. Fryer begins melt cycle to slowly heat solid shortening to programmed temperature before switching to full temperature and heating to setpoint or idle temperature and displays: READY.
- Exit melt cycle, when using liquid oil, by pressing and releasing the Exit Cool button or any programmed product button. Displays Exit Melt? on left and YES NO on the right. Press (YES) arrow to exit.

Cooking

- **COOL displayed:** Press product button or Exit Cool; fryer heats to setpoint and displays READY.
- **READY displayed:** Press product button and drop product.
- **----- displayed:** The vat temperature is out of the Ready zone.
- **DONE displayed:** Press blinking product button to cancel alarm and end a cook.
- **HOLD displayed:** Press blinking product button to cancel hold alarm.
- **Cancel a Cook:** Press and hold blinking product button to cancel cook cycle.

Change Cook Temperature: Press and hold a product button with the desired different cooking temperature for 3 seconds. An audible will confirm that the temperature has changed. Press the product button again to start a cook at the new temperature.

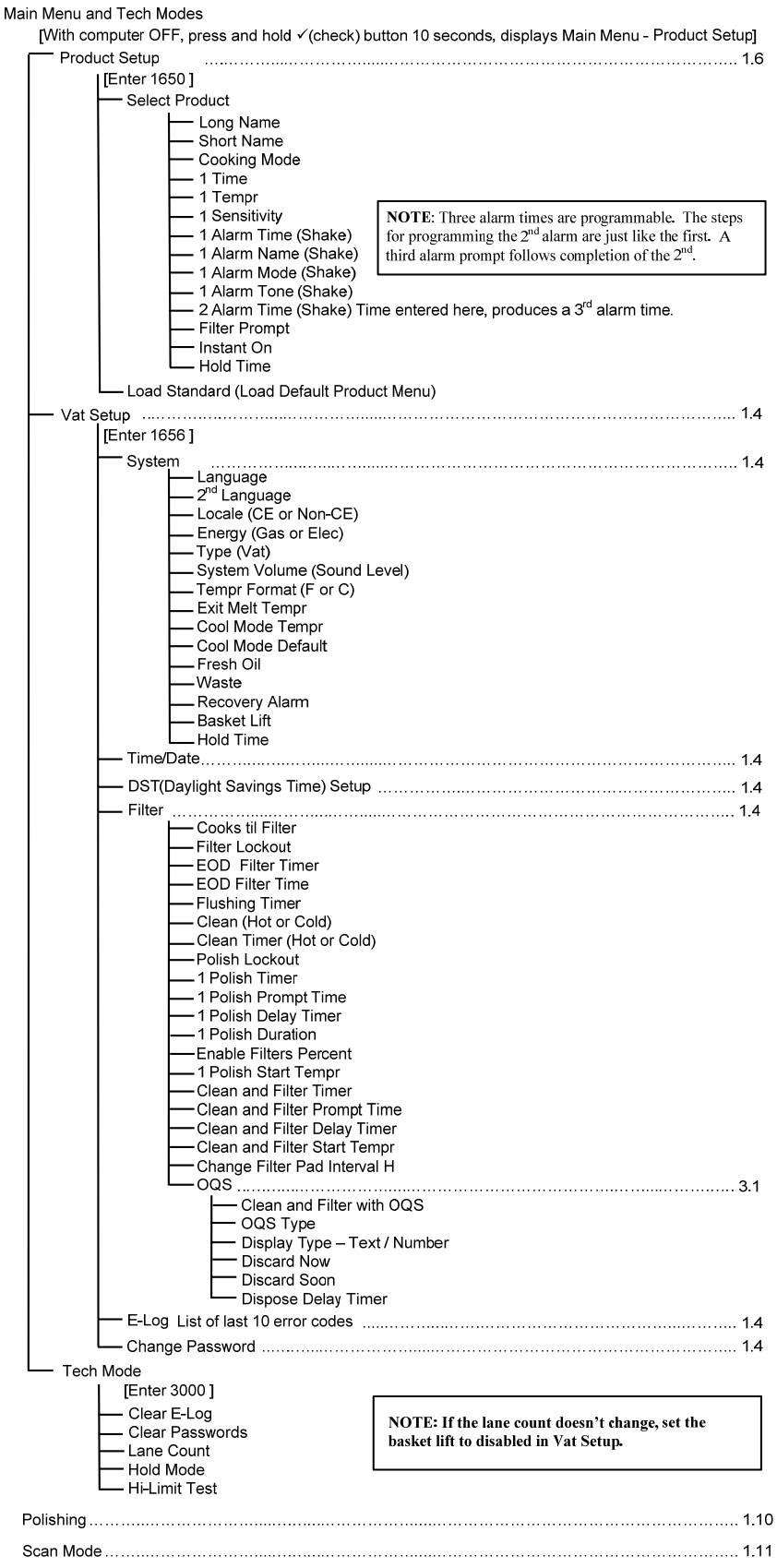
NOTE: When a product button with a setpoint different than a currently cooking product is pressed, a low tone is heard indicating the new cook won't start until the cook is finished and the cook temperature is changed.

Controller Button Navigation

- **Product:** Press to start a cook cycle. Active when adjacent LED is lit. LED flashes during a cook cycle. Press and hold to cancel a cook cycle. Press at end of cook cycle to cancel an alarm. Press and hold a product with different setpoint to change setpoint temperature.
- **Exit/ Scan:** Press once; all product buttons are lit. Select Product displayed. Press product button to view product name. Press ▶ to advance through all product parameters. Press Exit Scan again to repeat. Press Exit Scan twice to escape.
- **Left/Right Arrows:** Navigate options in left display. Press both simultaneously to start a polish cycle.
- **Up/Down Arrows:** Navigate options in right display. Press both simultaneously to change to a second language if one is selected in setup.
- **Exit Cool:** Exits cool mode, returns fryer to setpoint temperature.
- **Thermometer: Fryer ON:** Press and release for setpoint in left display and vat temperature in right display.
- **Thermometer: Fryer OFF:** Press to display temperature, time, date, system version, controller and circuit board software versions.
- **Thermometer: Fryer OFF:** Press and hold. Will display AIF/ATO Temp
- **Checkmark: Fryer OFF:** Press to check recovery; Press and hold 3 seconds: Scroll filter usage; Press and hold 10 seconds: Product setup.
- **Checkmark: Fryer ON**: Press to check recovery; Enter Codes and Respond to left display prompts.
- **Filter: Press and release:** Displays total percentage of products cooked and cooks remaining to filter cycle. **Press and hold:** Filter options: Filter, Clean and Filter, OQS, Dispose, Drain to Pan, Fill from Pan, Hot or Cold Clean, Fill Vat from Bulk (Bulk only) and Pan to Waste (Bulk only).

1.2 Menu Trees

1.2.1 FilterQuick™ Controller Menu Setup Tree



1.2.2 FilterQuick™ Filter and Info Mode Menu Tree

Filter Menu 1.9

[With computer OFF, press and hold FILTER button]

- Dispose
  - (Dispose to SDU / Fill from JIB)
  - (Dispose to Bulk or Front / Fill from JIB)
  - (Dispose to Bulk / Fill from Bulk)
- Drain to Pan
- Clean (Hot [Boil Out] or Cold [Cold Soak]
  - (Dispose to SDU / Fill from JIB)
  - (Dispose to Bulk or Front / Fill from JIB)
  - (Dispose to Bulk / Fill from Bulk)
- Pan to Waste (Bulk only)
- Fill Vat from Pan
- Fill Vat from Bulk (Bulk only)

Filter Menu 1.9

[With computer ON, press and hold FILTER button]

- Filter
- Clean and Filter
- OQS (Oil Quality Sensor) (Available only if installed and enabled.)
- Dispose
  - (Dispose to SDU / Fill from JIB)
  - (Dispose to Bulk or Front / Fill from JIB)
  - (Dispose to Bulk / Fill from Bulk)
- Drain to Pan
- Pan to Waste (Bulk only)

Info Mode 1.5

[Press and hold ✓(check) button]

- Last Dispose Stats
- Daily Stats
- Selected Period Stats
- Last Load Stats
- TPM

1.3 Setup: Main Menu

Pressing and holding the checkmark key for 10 seconds produces the setup mode, which first displays Product Setup. Turn the controller off and follow the steps below to navigate the options.

Left Display	Right Display	Action
OFF	OFF	Start with the far left controller. Press and hold the ✓ (check) button until the controller scrolls INFO MODE, changing to MAIN MENU and then PRODUCT SETUP.
Product Setup		Press ▶ to scroll to Product Setup, Vat Setup, Tech Mode, and Exit. With the desired selection displayed, press ✓.
Product Setup		Used to program menu items and cooking parameters.
vat setup		Vat set up is described below in section 1.4.
Tech Mode		Tech mode is used to enable and disable Cooks and Filters options.
Exit	Exit	Press Exit/Scan button to return the controller to OFF.

1.4 Vat Setup

Vat Setup mode allows the controller to be set for language displays, vat sizes, and temperature range displays. With the controller OFF, follow the steps below. ***NOTE: Most of the system choices are only available on the far left (Master) controller. Vat type, Cool Mode Default and Basketlift are only available on other controllers.**

Left Display	Right Display	Action
OFF	OFF	Start with the far LEFT controller. Press and hold the ✓ (check) button until the controller scrolls Info Mode, changing to MAIN MENU and then PRODUCT SETUP.
PRODUCT SETUP		Press ▶ to scroll to Vat setup and press ✓.
VAT SETUP	ENTER CODE	Enter 1656.
SYSTEM		Press ✓.
LANGUAGE	ENGLISH	Press ▼▲ to scroll to choice and press ▶.
2ND LANGUAGE	SPANISH	Press ▼▲ to scroll to choice and press ▶. (This option allows another language to be toggled from the front panel. (ex. Spanish as a second language.) Default is Spanish.
LOCALE	NON-CE	Press ▼▲ to scroll to choices: CE (European Conformity standards), or Non-CE (non-European standards) and press ▶. This option is available only on the far left controller.
ENERGY	GAS	Press ▼▲ to scroll to choices: Gas or Electric and press ▶. This option is available only on the far left controller.
TYPE	GL30 FULL	Press ▼▲ to scroll choices: **Gas-** GL30 Full, GL30 Split, GL30 Full OSP, GL30 Split OSP, 11814 Full **Electric-** EL30-14 Full, EL30-14 Split, EL30-17 Full, EL30-17 Split, 11817 Full. With the current fryer vat type displayed, press ▶.
SYSTEM VOLUME	5	Sets sound level for controller. Enter level, 1-9 (1=Lowest/ 9=Loudest). Press ▶.
TEMPR FORMAT	F	Press ▼▲ to scroll choices: F for Fahrenheit; C for Celsius. Press ▶.
EXIT MELT TEMPR	180º (82 ºC)	Use numbered keys to change default setting. Press ▶. (This is the temperature for the fryer to exit the melt cycle.) Range is 100°F (38°C) to 200°F (93°C). Default is 180°F (82°C).
COOL MODE TEMPR	250F (121 ºC)	Use numbered keys to change default setting. Press ▶. (This is the temperature during setback or idle mode.) Default is 250°F (121°C).
COOL MODE DEFAULT	0	Use numbered keys to change default setting. (This is the amount of minutes the fryers sits idle before going to cool mode. The default, 0, disables the feature.) Press ▶.
FRESH OIL	JIB	Press ▼▲ to scroll choices JIB or Bulk. Default is JIB. Press ▶.
WASTE	SDU	Press ▼▲ to scroll choices SDU, BULK or FRONT. Default is SDU. Press ▶.

Left Display	Right Display	Action
RECOVERY ALARM	DISABLED	Press ▼▲ to scroll choices DISABLED and ENABLED. Press ▶. (This is a recovery alarm that locks out the fryer if it does not heat properly. Default is disabled.
BASKET LIFT	DISABLED	Press ▼▲ to scroll choices DISABLED and ENABLED. Press ▶. Default is disabled.
HOLD TIME	AUTO	Press ▼▲ to scroll choices AUTO and MANUAL. Press ▶. (This is the hold timer cancel alarm.) If set to auto, the alarm will auto cancel. Default is auto.
EXIT	EXIT	Press ✓ button once to return the controller to OFF.
Time/date Programming		
OFF	OFF	Press ✓ until the controller scrolls INFO MODE, changing to MAIN and then PRODUCT SETUP.
PRODUCT SETUP		Press ▶ to scroll to Vat setup and press ✓.
VAT SETUP	ENTER CODE	Enter 1656.
SYSTEM		Press ▶ to scroll to TIME/DATE.
TIME/DATE		Press ✓.
TIME ENTRY	TIME	Use numbered keys to change time. Enter the time in 24 hour format. Press ▶.
DATE FORMAT	MM/DD/YY	Press ▼▲ to scroll choices. With the desired date format displayed, press ▶.
ENTER DATE	DATE	Use numbered keys to change date. Press ▶.
EXIT	EXIT	Press the Exit/Scan button three times to return the controller to OFF.
DST SETUP	This is daylight savings time setup. In the United States, daylight saving time begins at 2:00 A.M. on the second Sunday in March. Clocks move ahead one hour. Daylight saving time ends at 2:00 A.M. on the first Sunday in November. Clocks move back one hour. For the two U.S. states and international locations that do not use DST, set to disabled.	
OFF	OFF	Press ✓ until the controller displays INFO MODE, changing to MAIN and then PRODUCT SETUP.
PRODUCT SETUP		Press ▶ to scroll to Vat setup and press ✓.
VAT SETUP	ENTER CODE	Enter 1656.
SYSTEM		Press ▶ to scroll to DST Setup.
DST SETUP		Press ✓
DST	ENABLED	Press ▼▲ to scroll choices DISABLED and ENABLED. Press ▶. (Default is enabled.) If disabled is chosen, pressing the ▶ button, displays exit. Press the exit scan button three times to exit.
DST START MONTH	3	Enter the daylight savings time starting month using the 1-10 keys. (Default is US starting month: 3.) Press ▶.
DST START SUNDAY	2	Enter the daylight savings time starting Sunday using the 1-10 keys. (Default is US starting Sunday 2.) Press ▶.
DST END MONTH	11	Enter the daylight savings time ending month using the 1-10 keys. (Default is US ending month 11.) Press ▶.
DST END SUNDAY	1	Enter the daylight savings time ending Sunday using the 1-10 keys. (Default is US ending Sunday 1.) Press ▶.
EXIT	EXIT	Press the Exit/Scan button three times to return the controller to OFF.
FILTER		
OFF	OFF	Press ✓ until the controller scrolls INFO MODE, changing to MAIN and then PRODUCT SETUP.
PRODUCT SETUP		Press ▶ to scroll to Vat setup and press ✓.

Left Display	Right Display	Action
VAT SETUP	ENTER CODE	Enter 1656.
SYSTEM		Press ▶ to scroll to FILTER.
FILTER		Press ✓.
COOKS TILL FILTER	0	(This is the total number of cooks that occur before a filter prompt. The default is 0.) Enter the number of cooks before a filter prompt is desired. Press ▶.
FILTER LOCKOUT	NONE	Press ▼▲ to scroll to choice NONE, MAX or MIN and press ▶. (Default is NONE) NONE=Disabled, MIN=a filtration must occur at each prompt. No bypasses are allowed. MAX= allows a filter to be bypassed once. At the next filter prompt the vat must be filtered. **NOTE: This affects Filter and Clean and Filter functions.**
EOD FILTER TIMER	DISABLED	Press ▼▲ to scroll to choice enable or disable and press ▶. (Default is DISABLED)
EOD FILTER TIME	23:59	Use numbered keys to program end of day filter alert time. Enter time in 24 hour format. After this time, the controller prompts for filter when user presses the power button to go to OFF. Enter 23:59 if no end of day filter prompt is desired. Press ▶.
FLUSHING TIMER	5	Use numbered keys to change default setting for the flushing timer. Enter the time in minutes. Default is five minutes. Press ▶.
CLEAN	HOT	Press ▼▲ to scroll to choice HOT (Boil Out) or COLD (Cold Soak) and press ▶. (Default is HOT (Boil Out)
CLEAN TIMER	30	Use numbered keys to change default setting for the hot (Boil Out) or cold clean (Cold Soak) timer. Enter the time in minutes. Default is 30 minutes. Press ▶.
POLISH LOCKOUT	DISABLED	Press ▼▲ to scroll to choice enable or disable and press ▶. (Default is DISABLED) If enabled, allows a polish to be bypassed once. On the next polish prompt the vat must be filtered.
1 POLISH TIMER	DISABLED	Press ▼▲ to scroll to choice enable or disable and press ▶. (Default is DISABLED). Press ▶.
1 POLISH PROMPT TIME	23:59	Use numbered keys to enter polish prompt time. (This is the time the polish prompt will occur each day.) 23:59 is disabled. Enter time in 24 hour format. Press ▶.
1 POLISH DELAY TIMER	00:30	Use numbered keys to change time (use 10 for 0). (This is the amount of time which an operator can delay the start of a polish.) Press ▶. After the delay the operator must polish.
1 POLISH DURATION	15	Use numbered keys to change. (This is the duration, in minutes for a polish.) Default is 15 minutes. Press ▶.
ENABLE FILTERS PERCENT		Press ✓. Press ▼▲ to scroll to choice YES or NO and press ▶. Default is NO. Press ▶. This is the total percentage of products cooked and cooks remaining to filter cycle.
1 POLISH START TEMPR	(300F) (149°C)	Use numbered buttons to change temperature. (This is the minimum temperature required for a polish to begin.) Default is 300F (149C). Press ▶.
CLEAN AND FILTER TIMER	DISABLED	Press ▼▲ to scroll to choice enable or disable and press ▶. (Default is DISABLED). Press ▶. This is a prompt to perform a clean and filter.
CLEAN AND FILTER PROMPT TIME	14:00	Use numbered keys to enter clean and filter prompt time. (This is the time the clean and filter prompt will occur each day if enabled.) 23:59 is disabled. Enter time in 24 hour format. Press ▶. (Default is 14:00).

Left Display	Right Display	Action
CLEAN AND FILTER DELAY TIMER	01:00	Use numbered keys to change time (use 10 for 0). (This is the amount of time which an operator can delay the start of a clean and filter delay timer.) If the delay time = 0, no delay is allowed. Press ▶. After the delay the operator must perform a clean and filter.
CLEAN AND FILTER START TEMPR	(300F) (149°C)	Use numbered buttons to change temperature. (This is the minimum temperature required for a clean and filter to begin.) (Default is 300F (149C)). Press ▶.
CHANGE FILTER PAD INTERVAL H	25	Use numbered keys to adjust CHANGE FILTER PAPER prompt. (This is the amount of time in hours after the filter paper has been changed before the next prompt will occur.) (The default is set to 25 hours.) If the value = 0, the CHANGE FILTER PAPER prompt is disabled. Press ▶.
OQS	DISABLED	If installed, see section 3.1 in Chapter 3.
EXIT	EXIT	Press the Exit/Scan button once to return the controller to OFF.
E-LOG		
OFF	OFF	Press ✓ until the controller scrolls INFO MODE, changing to MAIN and then PRODUCT SETUP.
PRODUCT SETUP		Press ▶ to scroll to Vat Setup. Press ✓.
VAT SETUP	ENTER CODE	Enter 1656.
SYSTEM		Press ▶ to scroll to E-LOG.
E-LOG		Press ✓. (This is a log of the ten most recent error codes.)
NOW	TIME/DATE	Press ▶. (Current time and date)
A thru J	TIME/DATE	Errors listed A-J. Press ▶ to scroll through errors. Error codes are listed on page 2-4. If no errors exist, pressing ▶ will display No errors. Press ▶.
EXIT	EXIT	Press the Exit/Scan button three times to return the controller to OFF.
CHANGE PASSWORD		
OFF	OFF	Press ✓ until the controller scrolls INFO MODE, changing to MAIN and then PRODUCT SETUP.
PRODUCT SETUP		Press ▶ to scroll to Vat Setup. Press ✓.
VAT SETUP	ENTER CODE	Enter 1656.
SYSTEM		Press ▶ to scroll to Change Password.
CHANGE PASSWORD		Press ✓.
PRODUCT SETUP	1650	Use numbered keys to change code. Press ▶.
VAT SETUP	1656	Use numbered keys to change code. Press ▶.
EXIT	EXIT	Press the Exit/Scan button three times to return the controller to OFF.

1.5 INFO MODE: Viewing Operational Stats

The FilterQuick™ collects and stores information on cook and filter cycles. This data is in the info mode, and is accessed by pressing the checkmark key with the controller off or on. The steps to view the data are detailed below.

Left Display	Right Display	Action
OFF/ON	OFF/ON	Press ✓ until INFO MODE is displayed and release.
LAST DISPOSE STATS		Press ▶ to scroll: Last Dispose Stats, Daily Stats, Selected Period Stats, Last Load Stats, TPM. With the desired stats displayed, press ✓.
TOTAL COOKS	NUMBER	Press ▶. (This is the number of cooks since the last dispose.)
LAST DISPOSE	DATE	Press ▶. (This is the date of the last dispose.)
FILTERS— SINCE DISPOSE	NUMBER	Press ▶. (This is the number of filters since oil disposal.)
FILTERS BY-PASSED – SINCE DISPOSE	NUMBER	Press ▶. (This is the number of by-passed filters since oil disposal.)
POLISHES— SINCE DISPOSE	NUMBER	Press ▶. (This is the number of polishes since oil disposal.)
POLISHES BY-PASSED – SINCE DISPOSE	NUMBER	Press ▶. (This is the number of by-passed polishes since oil disposal.)
OIL LIFE	NUMBER DAYS	Press ▶. (This is the number of days since the last dispose.)
OIL LIFE- 1 DISPOSE PRIOR	NUMBER DAYS	Press ▶. (This is the oil life in days 1 dispose prior.)
OIL LIFE – 2 DISPOSES PRIOR	NUMBER DAYS	Press ▶. (This is the oil life in days 2 disposes prior.)
AVG OIL LIFE	NUMBER DAYS	Press ▶. (This is the average oil life of past 3 disposes.)
AVG COOKS	NUMBER	Press ▶. (This is the average cooks over past 3 disposes.)
RESET LAST DISPOSE STATS	YES NO	Press ▶ to scroll or ▲ to reset Last Dispose stats.
RESET LAST DISPOSE STATS	ENTER CODE	Enter 1656
COMPLETE		
EXIT	EXIT	Press ✓ button once and press ▶ to scroll to desired choice. Once desired choice is displayed, press ✓ button or press the Scan button once to return the controller to OFF.
DAILY STATS		With the desired stats displayed, press ✓.
MON	DATE	Press ▼▲ to scroll a day within the prior week. With the desired date displayed, press ▶.

Left Display	Right Display	Action
FILTERS	NUMBER AND DAY	Press ▼▲ to scroll number of times the vat was filtered on that day of the prior week. Press ▶.
FILTERS – PRIOR WEEK	NUMBER AND DAY	Press ▼▲ to scroll number of daily filter cycles in the prior week. Press ▶. Press ✓ button once to return to Info Mode menu, or Exit/Scan button once to return the controller to OFF.
FILTERS BYPASSED	NUMBER AND DAY	Press ▼▲ to scroll number of times the filter prompt was bypassed on that day in the prior week. Press ▶.
COOKS	NUMBER AND DAY	Press ▼▲ to scroll number of cook cycles on that day of the prior week occurred. Press ▶.
EXIT	EXIT	Press ✓ button once and press ▶ to scroll to desired choice. Once desired choice is displayed, press ✓ button or press the Scan button once to return the controller to OFF.
SELECTED PERIOD STATS		Press ▶ to scroll Info Mode Menu: Last Dispose Stats, Daily Stats, Selected Period Stats, Last Load Stats with the desired stats displayed, press ✓.
DATE	TIME	Press ▶. (This is the date and time the selected period started.)
COOKS	NUMBER	Press ▶. (This is the total number of cooks since start of selected period.)
QUIT COOKS	NUMBER	Press ▶. (This is the total number of cooks that were cancelled since start of the selected period.)
ON HOURS	NUMBER	Press ▶. (This is the total number of hours the fryer was on since start of the selected period.)
RESET USAGE	YES NO	Press ▶ to scroll or ▲to set start of new selected period stats.
RESET USAGE	ENTER CODE	Enter 1656.
COMPLETE		
EXIT	EXIT	Press ✓ button once and press ▶ to scroll to desired choice. Once desired choice is displayed, press ✓ button or press the Scan button once to return the controller to OFF.
LAST LOAD STATS		With the desired stats displayed, press ✓.
PRODUCT	PRODUCT NAME	Press ▶.
STARTED	NUMBER MINUTES	Press ▶. (This is the time the last cook started.)
ACTUAL TIME	NUMBER MINUTES	Press ▶. (This is the actual cook time including stretch time.)
PROGRAM TIME	NUMBER MINUTES	Press ▶. (This is the programmed cook time.)
MAX TEMP	NUMBER	Press ▶. (This is the maximum temperature of the oil during the last cook.)
MIN TEMP	NUMBER	Press ▶. (This is the minimum temperature of the oil during the last cook.)
AVG TEMP	NUMBER	Press ▶. (This is the average temperature of the oil during the last cook.)
HEAT ON	%	Press ▶. (This is the percentage of the cook time the heat source was on during the last cook.)
READY FOR COOK	YES OR NO	Press ▶. (This displays yes if the fryer was back to set temperature before the cook cycle was started.)
TPM		With the desired stats displayed, press ✓.
Current Day	Current Date	Press ▼ to view TPM.
TPM	Number/– – Current Day	Press ▼▲ to scroll for last measured TPM value that day. Press ▶. NOTE: If not installed; or invalid or no reading is taken, dashed lines are shown.

Left Display	Right Display	Action
TPM	Date	Press ◀ to scroll to TPM values for the previous week. Press ▲to view dates.
EXIT	EXIT	Press the Scan button twice to return the controller to OFF.

1.6 Main Menu: Product Setup (Single Setpoint Cooking)

Programming food items is shown below. Ensure the controller is OFF and follow the steps. The right column has the action necessary to continue. Exit from a programming step at any time by pressing the Exit/Scan key until the display returns OFF

Left Display	Right Display	Action
OFF	OFF	Press ✓ until the controller scrolls INFO MODE, changing to MAIN and then PRODUCT SETUP.
PRODUCT SETUP		Press ✓.
PRODUCT SETUP	ENTER CODE	Enter 1650. If loading a default menu on a legacy fryer, use the steps in the gray fields below. If not, skip gray fields.
SELECT PRODUCT		Press desired product button.
LONG NAME	Product name or button number	Enter product name with letter keys. Advance cursor with ▲▼. Press ▶ to advance to next product set up feature.
SHORT NAME	Abbreviated Product name or button number	Enter four character product name which alternates with the timer during a cook. Press ▶.
COOKING MODE	SINGLE SETPOINT	Press ▶. If multiple setpoint or segmented cooking is desired press ▼ MULTIPLE SETPOINT and go to 1.8 and follow the instructions. Default is SINGLE SETPOINT.
1 TIME	0:00 or previously entered time	Enter total cook time with numbered keys. Press ▶.
1 TEMPR	350F or previously entered temperature	Enter cooking temperature. Press ▶.
1 SENSITIVITY	Number	Enter the level of sensitivity, 0-9, for the product. Press ▶.
1 ALARM TIME (Shake Time)	0:00 or previously entered time	Enter time in cook cycle for audible alarm for shaking. Press ▶. If set to 0:00 skip to FILTER PROMPT.
1 ALARM NAME	SHAKE	Press ▼▲ to scroll through the alarm names (ex. Shake, Stir). Press ▶.
1 ALARM MODE (Shake Alarm Mode)	AUTO	Press ▶. Default is auto. Press ▼▲ to scroll to Manual shake alarm mode. Press ▶. Alarm (Shake) Mode when set to auto, cancels the alarm automatically after a few seconds. Manual requires user action.
1 ALARM TONE (Shake Alarm tone)	SHORT	Press ▼▲ to scroll choice of shake alarm tones. Press ▶. Default is SHORT.
2 ALARM TIME	0:00	Press ▶. Leave at 0:00 if a second alarm is not needed. Enter time if needed and follow steps above for entering other parameters. Repeat for third alarm time. (If 0:00 is entered for second alarm, the steps for the third alarm do not appear.)
FILTER PROMPT	0 or previously entered number .	Enter number of cook cycles before a filter prompt and press ▶.
INSTANT ON	5 or previously set number	This is the time, in seconds, the fryer heats at 100%, after the product button is pressed before the controller adjusts the temperature. Enter value and press ▶. (Default is 5. 0=OFF). **NOTE: Instant on time may need to be adjusted for light cooking loads.**
HOLD TIME	0 or previously entered time.	Enter time in minutes to hold product before discarding. Press ▶.
EXIT	EXIT	Press the ✓ button to save changes.

Left Display	Right Display	Action
SELECT PRODUCT		For additional programming refer back to Product Setup above. To exit press the EXIT SCAN button twice to OFF.

To access menu strip, remove screws attaching bezel. Lower bezel and remove strip from back of controller. Once the menu strip is updated, reverse the steps to reassemble. To unassign a product from a button set the cook time to 0:00 and press EXIT/SCAN.

1.7 Multiple Setpoint (Segmented) Cooking Overview

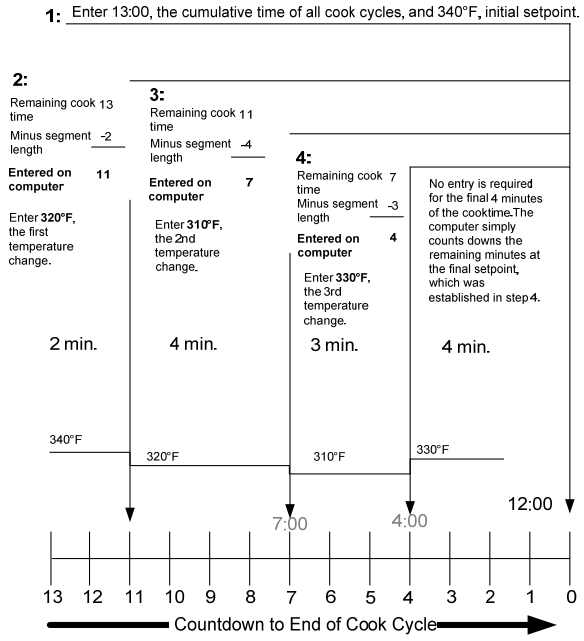
When segmented cooking is selected, the product can cook at a variety of cooking temperatures with the temperature changes occurring at user programmable points in the cook cycle.

When programming for segmented cooking, it is easiest to think of the entire cook cycle occurring on a countdown timer. The cook cycle begins with its full time allotment, say, 13 minutes and it is completed when the countdown timer reaches zero. The desired temperature changes are entered based on when they are to occur relative to the remaining cooking time.

The time entries for temperature changes are for the time remaining in the cook cycle, not the time elapsed. The graphic below breaks down a 13-minute cook cycle. It's best to create a similar table of time/temperature changes before beginning the programming process.

- Step 1 sets total cook time and initial setpoint.
- Step 2 sets the duration of the first cooking segment, 2 minutes, and the setpoint of the first temperature change.
- Step 3 sets the duration of the second cooking segment, 4 minutes, and the setpoint of the second temperature change.
- Step 4 sets the duration of the third cooking segment, 3 minutes, and the setpoint of the third temperature change.

The four remaining minutes in the cook time elapse at the final temperature. No entry is required to use the final minutes



1.8 Main Menu: Product Setup (Multiple Setpoint (Segmented) Cooking)

Left Display	Right Display	Action
OFF	OFF	Press ✓ until the controller scrolls INFO MODE, changing to MAIN and then PRODUCT SETUP.
PRODUCT SETUP		Press ✓.
PRODUCT SETUP	ENTER CODE	Enter 1650.
SELECT PRODUCT		Press desired product button.
LONG NAME	Product name or button number	Enter product name with letter keys. Advance cursor with ▲▼. Press ▶ to advance to next product set up feature.
SHORT NAME	Abbreviated product name or button number	Enter with letter keys abbreviated 4-character product name, which alternates with cook time. Press ▶.
COOKING MODE	SINGLE SETPOINT	Press ▶. If multiple setpoint or segmented cooking is desired press ▼ Multiple Setpoint (Segmented) and follow the instructions in the next section. (Default is SINGLE SETPOINT)

Left Display	Right Display	Action
1 TIME	0:00 or previously entered time	Enter total cook time for segmented item and press ▶.
1 TEMPR	350F or previously entered temperature	Enter initial cooking temperature and press ▶.
1 SENSITIVITY	Number	Enter the level of sensitivity, 0-9, for the product. Press ▶. Default is 0.
2 TIME	0:00 or previously entered time	Enter time remaining after first temperature change (see page 1-9) and press ▶.
2 TEMPR	0 or previously entered temperature	Enter first temperature change and press ▶.
2 SENSITIVITY	0 or previously entered value	Enter the flex value, 0-9, for the product and press ▶. Default is 0.
3 TIME	0:00 or previously entered time	Enter time remaining after second temperature change and press ▶.
3 TEMPR	0 or previously entered temperature	Enter temperature of the second segment and press ▶.
3 SENSITIVITY	0 or previously entered value	Enter the flex value, 0-9, for the product and press ▶. Default is 0.
4 TIME	0:00 or previously entered time	Enter time remaining after third temperature change and press ▶.
4 TEMPR	0 or previously entered temperature	Enter temperature of the third segment and press ▶.
4 SENSITIVITY	0 or previously entered value	Enter the flex value, 0-9, for the product and press ▶. Default is 0.
5 TIME	0:00 or previously entered time	Leave at zero if no more segments are needed and press ▶. *If more segments are needed, continue programming as shown above. Five is the limit.*
5 TEMPR	0 or previously entered temperature	Enter temperature of the third segment and press ▶.
5 SENSITIVITY	0 or previously entered value	Enter the flex value, 0-9, for the product and press ▶. Default is 0.
1 ALARM TIME	0:00 or previously entered time	Enter time in cook cycle for audible alarm for shaking. Press ▶.
1 ALARM NAME	SHAKE	Press ▼▲ to scroll through the alarm names (ex. Shake). Press ▶.
1 ALARM MODE	AUTO	Press ▼▲ to scroll to confirm Auto or Manual shake alarm mode. Press ▶. The default is auto.
1 ALARM TONE	SHORT	Press ▼▲ to scroll to choice of shake alarm tones. Press ▶.
2 SHAKE TIME	0:00 or previously entered time	Enter time in cook cycle for a second audible alarm for shaking. Press ▶.
2 ALARM NAME	SHAKE	Press ▼▲ to scroll through the alarm names (ex. Shake). Press ▶.
2 ALARM MODE	AUTO	Press ▼▲ to scroll to confirm Auto or Manual shake alarm mode. Press ▶. The default is auto.
2 ALARM TONE	SHORT	Press ▼▲ to scroll to choice of shake alarm tones. Press ▶.
3 TIME	0:00 or previously entered time	Enter time for third audible alarm for shaking. Press ▶.
3 ALARM NAME	SHAKE	Press ▼▲ to scroll through the alarm names (ex. Shake). Press ▶.
3 ALARM MODE	AUTO	Press ▼▲ to scroll to confirm Auto or Manual shake alarm mode. Press ▶. The default is auto.
3 ALARM TONE	SHORT	Press ▼▲ to scroll to choice of alarm tones. Press ▶.

Left Display	Right Display	Action
FILTER PROMPT	0 or previously entered number .	Enter number of cook cycles before a filter prompt and press ▶.
INSTANT ON	0	This is the time, in seconds, the fryer heats at 100%, after the product button is pressed, before the controller adjusts the temperature. Enter value and press ▶. Default is 0.
HOLD TIME	0 or previously entered time.	Enter time to hold product before discarding. Press ▶.
EXIT	EXIT	Press the ✓ button to save changes.
SELECT PRODUCT		For additional programming refer back to Product Setup above. To exit press the EXIT SCAN button twice to OFF.

To access menu strip, remove screws attaching bezel. Lower bezel and remove strip from back of controller. Once the menu strip is updated, reverse the steps to reassemble. To remove a product from a button set the cook time to 0:00 and press EXIT/SCAN.

1.9 Filter Menu

The FilterQuick™ controller has the following Filter menu options: Filter, Clean and Filter, OQS (if installed), Dispose (SDU or alternate container / Manually Fill Vat From JIB, Dispose to Bulk or Front / Manually Fill Vat From JIB, Dispose to Bulk / Fill From Bulk), Drain to Pan, Clean (Hot [Boil Out] or Cold [Cold Clean]) (Dispose to SDU or alternate container / Manually Fill Vat From JIB, Dispose to Bulk or Front / Manually Fill Vat From JIB, Dispose to Bulk / Fill From Bulk), Fill From Pan, Pan to Waste (Front or Bulk only), and Fill Vat from Bulk (Bulk only). All are accessed by pressing and holding the Filter button until the display becomes Filter Menu. If fryer temp is below 300°F (149°C) the, controller displays "WAIT FOR FILTER" or "FILTER BUSY". The controller must be on and at or above 300°F (149°C) to execute a Filter, a Clean and Filter or a Polish. All messages need to be confirmed or cleared on all controllers prior to starting any filtration process. **NOTE: Some functions are only available when the controller is on, while others are only available when the controller is OFF. Some are available when it is on or off. See menu tree on page 1-2.**

Entering Filter Menu Mode

Left Display	Right Display	Action
READY	READY	Press the FILTER button until FILTER MENU is displayed for three seconds changing to FILTER.
FILTER		Press ▶ to scroll to Clean and Filter, OQS (if installed), Dispose, Drain To Pan, Fill Vat from Pan, Fill Vat from Bulk (Bulk only), Pan to Waste (Bulk and Front only), Clean, or Exit. With the desired choice displayed press ✓. Follow instructions on the following pages to navigate the modes. If the filter pan is not fully engaged, the controller displays INSERT PAN. Once the filter pan is pushed fully into place, and the MIB board displays an "A", the filter function continues.

1.9.1 Filter

Left Display	Right Display	Action
FILTER		Press and hold FILTER button until FILTER is displayed.
LEFT (Split vats only)	RIGHT (Split vats only)	Press appropriate arrow to select side.
FILTER		Press the ✓ button.
FILTER NOW?	YES / NO	Press (YES) arrow to continue. Press (NO) arrow to bypass filtration and return to previous state. If the filter prompt was controller initiated, it will prompt again once the cook count reaches a fraction of the filter count. If (NO) is selected to a controller initiated filter prompt and filter lockout is enabled, FLT DLYD will be displayed. Pressing the check button for >3 seconds when FLT DLYD is displayed will prompt a filter. If the controller is turned OFF during the filter now prompt or when FLT DLYD is displayed, it will return once the controller is soft powered on again. If filter lockout is enabled, a filter has to be completed on the next prompt.

Left Display	Right Display	Action
SKIM VAT or OIL LEVEL TOO LOW.	CONFIRM	Skim the vat and press arrow under CONFIRM. If the oil level is too low, the controller displays "OIL LEVEL TOO LOW". Press either arrow under CONFIRM. The controller displays OFF. Fill the vat to the top oil level line and turn the controller on. Return to top step to filter.
START FILTRATION		Press button with blinking LED.
DRAINING		None required. If the drain becomes clogged, use the Fryer's Friend to clear the blockage.
FLUSHING		None required.
FILLING		None required.
-------- or LOW TEMP alternating with the temperature.	-------- or LOW TEMP alternating with the temperature.	Fryer starts heating back to setpoint. Once back to setpoint the controller displays READY.

1.9.2 Clean and Filter

Left Display	Right Display	Action
Follow steps to Entering Filter Menu Mode on page 1-11.		
LEFT (Split vats only)	RIGHT (Split vats only)	Press appropriate arrow to select side.
CLEAN AND FILTER		Press ✓.
CLEAN NOW?	YES / NO	Press (YES) arrow to continue. Press (NO) arrow to cancel and return to previous state. If (NO) is selected to a timed clean and filter lockout is enabled, filter prompt FLT DLYD will be displayed. Pressing the check button for >3 seconds when FLT DLYD is displayed will prompt a filter. If the controller is turned OFF during the clean now prompt or when FLT DLYD is displayed, it will return once the controller is soft powered on again. If filter lockout is enabled, a clean and filter has to be completed on the next prompt.
SKIM VAT		Skim the vat.
START FILTRATION		Press button with blinking LED.
DRAINING		None required. If the drain becomes clogged, use the Fryer's Friend to clear the blockage
CLEAN OIL SENSOR	CONFIRM	**(Gas Only)** Clean oil sensor with a no scratch pad and press arrow under CONFIRM (see section 5.2.5 in the FilterQuick Gas Installation and Operation Manual).
FLUSHING		Use brush and hot oil to wash down crumbs and residue from the frypot walls and foam deck. Use no scratch pad to remove residue. Frypot surface will be hot, use thermal gloves and extreme care.
SCRUB VAT COMPLETE?	CONFIRM	Clean the vat with a scrub brush. Clean the sediment from around the AIF and ATO sensors with a screwdriver or similar object to remove any sediment from around the sensors. Press arrow under CONFIRM to continue when complete.
POLISHING	5:00 TIMER	None required. The oil flows from the filter pan to the frypot and back to the filter pan for 5 minutes.
CLOSE DRAIN	CONFIRM	Press arrow under CONFIRM.
FILLING		None required.
IS VAT FULL?	YES / NO	Press (YES) if the vat is full. Press (NO) to continue filling.
OFF	OFF	

1.9.2.1 OQS (Oil Quality Sensor) see Chapter 3

1.9.3 Dispose (to SDU or alternate container / Manually fill vat from JIB)

For safe, convenient draining and disposal of used oil or shortening, Frymaster recommends using the Frymaster Shortening Disposal Unit (SDU). The SDU is available through your local distributor.

Left Display	Right Display	Action
Follow steps to Entering Filter Menu Mode on page 1-11. **DANGER: When draining oil into an appropriate METAL container, make sure the container will hold at least FOUR gallons (15 liters) or more for FQE30 or FQG30 fryers, or EIGHT gallons (30 liters) or more for 1814E or 1814G fryers, otherwise hot liquid could overflow and cause injury.**		
LEFT (Split vats only)	RIGHT (Split vats only)	Press appropriate arrow to select side.
DISPOSE		Press ✓.
DISPOSE NOW?	YES / NO	Press (YES) arrow to continue. Press (NO) arrow to cancel and return to previous state.
REMOVE FILTER PAN		Remove filter pan.
INSERT DISPOSAL UNIT	CONFIRM	Insert (SDU) shortening disposal unit or METAL pan large enough to contain FOUR gallons (15 liters) or more for FQE30 or FQG30 fryers, or EIGHT gallons (30 liters) or more for 1814E or 1814G fryers under the drain and press arrow under CONFIRM.
START DISPOSE		Press button with blinking LED.
DISPOSING		None required. If the drain becomes clogged, use the Fryer's Friend to clear the blockage.
VAT EMPTY AND CLEAN?	CONFIRM	Press arrow under CONFIRM.
REMOVE DISPOSAL UNIT	CONFIRM	Remove disposal unit and press arrow under CONFIRM.
INSERT FILTER PAN		Insert Filter pan
FILL VAT	CONFIRM	Manually fill vat with fresh oil and press arrow under CONFIRM when full.
OFF	OFF	

1.9.4 Dispose (to Bulk or Front / Manually fill vat from JIB)

Left Display	Right Display	Action
Follow steps to Entering Filter Menu Mode on page 1-11.		
LEFT (Split vats only)	RIGHT (Split vats only)	Press appropriate arrow to select side.
DISPOSE		Press ✓.
DISPOSE NOW?	YES / NO	Press (YES) arrow to continue. Press (NO) arrow to cancel and return to previous state.
WASTE TANK FULL	CONFIRM	If waste tank is full, this message is displayed. Press button to CONFIRM and call waste oil provider. Controller displays OFF.
START DISPOSE		Press button with blinking LED.
DRAINING		None required. If the drain becomes clogged, use the Fryer's Friend to clear the blockage.
VAT EMPTY AND CLEAN?	CONFIRM	Press arrow under CONFIRM.
OPEN DISPOSE VALVE		Pull the dispose handle. **(Note: If using front dispose, ensure the wand is connected to the quick disconnect port. Press and hold switch after pulling the dispose handle to dispose oil.)**
DISPOSING	4:00 countdown timer	None required.

Left Display	Right Display	Action
REMOVE FILTER PAN		Open the door and pull filter pan out of the cabinet.
IS PAN EMPTY?	YES / NO	Ensure the pan is empty and press (YES), otherwise press (NO) and follow the prompts (returns to DISPOSING).
INSERT FILTER PAN		Insert the pan.
CLOSE DISPOSE VALVE		Push the dispose handle in. **(Note: If using front dispose, disconnect the dispose wand.)**
FILL VAT?	CONFIRM	Manually fill vat with fresh oil and press arrow under CONFIRM when full.
OFF	OFF	

1.9.5 Dispose (to Bulk or Front / Fill Vat from Bulk)

Left Display	Right Display	Action
Follow steps to Entering Filter Menu Mode on page 1-11.		
LEFT (Split vats only)	RIGHT (Split vats only)	Press appropriate arrow to select side.
DISPOSE		Press ✓.
DISPOSE NOW?	YES / NO	Press (YES) arrow to continue. Press (NO) arrow to cancel and return to previous state.
WASTE TANK FULL	CONFIRM	If waste tank is full, this message is displayed. Press button to CONFIRM and call waste oil provider. Controller displays OFF.
START DISPOSE		Press button with blinking LED.
DRAINING		None required. If the drain becomes clogged, use the Fryer's Friend to clear the blockage.
VAT EMPTY AND CLEAN?	CONFIRM	Press arrow under CONFIRM when empty.
OPEN DISPOSE VALVE		Pull the dispose handle. **(Note: If using front dispose, ensure the wand is connected to the quick disconnect port. Press and hold switch after pulling the dispose handle to dispose oil.)**
DISPOSING	4:00 countdown timer	None required while the oil is disposing as the timer counts down.
REMOVE FILTER PAN		Open the door and pull filter pan out of the cabinet.
IS PAN EMPTY?	YES / NO	Ensure the pan is empty and press (YES) arrow, otherwise press (NO) arrow and follow the prompts (returns to DISPOSING).
INSERT FILTER PAN		Insert the pan.
CLOSE DISPOSE VALVE		Push the dispose handle. **(Note: If using front dispose, disconnect the dispose wand.)**
FILL VAT FROM BULK?	YES / NO	Press (YES) arrow to fill vat or (NO) arrow to go to OFF.
PRESS AND HOLD YES TO FILL	YES	Press and hold (YES) arrow to fill.
FILLING		Displayed while filling vat.
CONTINUE FILLING?	YES / NO	Press (NO) arrow when full, otherwise press (YES) arrow to continue filling.
OFF	OFF	

1.9.6 Drain to Pan

Left Display	Right Display	Action
Follow steps to Entering Filter Menu Mode on page 1-11.		
LEFT (Split vats only)	RIGHT (Split vats only)	Press appropriate arrow to select side.
DRAIN TO PAN		Press ✓.
DRAIN NOW?	YES / NO	Press (YES) arrow to continue. Press (NO) arrow to cancel and return to previous state.
OPEN DRAIN VALVE		Press button with blinking LED.
DRAINING		Displayed while draining. If the drain becomes clogged, use the Fryer's Friend to clear the blockage.
VAT EMPTY?	CONFIRM	Press arrow under CONFIRM.
FILL FROM PAN?	YES / NO	Press (YES) to fill vat from pan. Press (NO) to go to OFF.
FILLING		None required.
IS THE VAT FULL?	YES / NO	Press (YES) if vat is full, otherwise press (NO) and follow the prompt (returns to FILLING for another 45 seconds). If vat is not full after two attempts go to next line.
REMOVE FILTER PAN		Open the door and pull filter pan out of the cabinet.
IS PAN EMPTY?	YES / NO	Ensure the pan is empty and press (YES) arrow and go to next line, otherwise press (NO) arrow and follow prompt to CHANGE FILTER PAPER.
INSERT FILTER PAN		Insert the pan.
OFF	OFF	

1.9.7 Fill Vat from Pan

Left Display	Right Display	Action
Follow steps to Entering Filter Menu Mode on page 1-11. **WARNING: Ensure the oil is at or near operating temperature to prevent damage to the pump.**		
LEFT (Split vats only)	RIGHT (Split vats only)	Press appropriate arrow to select side.
FILL FROM PAN		Press ✓.
FILL VAT FROM PAN?	YES / NO	Press (YES) arrow to continue. Press (NO) arrow to cancel and return to OFF.
FILLING		None required.
IS THE VAT FULL?	YES / NO	Press (YES) arrow if vat is full, otherwise press (NO) arrow and follow the prompt (returns to FILLING).
OFF	OFF	

1.9.8 Fill Vat from Bulk (Bulk only)

Left Display	Right Display	Action
Follow steps to Entering Filter Menu Mode on page 1-11.		
LEFT (Split vats only)	RIGHT (Split vats only)	Press appropriate arrow to select side.
FILL VAT FROM BULK		Press ✓.
FILL VAT FROM BULK?	YES/NO	Press (YES) arrow to continue. Press (NO) arrow to cancel and return to OFF.
PRESS AND HOLD YES TO FILL	YES	Press and hold (YES) arrow to fill.
FILLING		Displayed while filling vat.
CONTINUE FILLING?	YES / NO	Once the button is released while filling this message is displayed. Press (NO) arrow when full, otherwise press (YES) arrow to continue filling.
OFF	OFF	

1.9.9 Pan to Waste (Bulk only)

Left Display	Right Display	Action
Follow steps to Entering Filter Menu Mode on page 1-11.		
LEFT (Split vats only)	RIGHT (Split vats only)	Press appropriate arrow to select side.
PAN TO WASTE		Press ✓.
PAN TO WASTE?	YES/NO	Press (YES) arrow to continue. Press (NO) arrow to cancel and return to previous state.
WASTE TANK FULL	COMFIRM	If waste tank is full, this message is displayed. Press button to CONFIRM and call waste oil provider. Controller displays OFF.
OPEN DISPOSE VALVE		Pull the dispose handle.
DISPOSING		None required while the oil is disposing.
REMOVE FILTER PAN		Open the door and pull filter pan out of the cabinet.
IS PAN EMPTY?	YES / NO	Ensure the pan is empty and press (YES) arrow, otherwise press (NO) arrow and follow the prompts (returns to DISPOSING).
INSERT FILTER PAN		Insert the pan.
CLOSE DISPOSE VALVE		Push the dispose handle in.
OFF	OFF	

1.9.10 Clean (Hot [Boil Out] or Cold [Cold Clean (Soak)]) (Dispose to SDU or Alternate container / Manually Fill Vat from JIB)

Left Display	Right Display	Action
Follow steps to Entering Filter Menu Mode on page 1-11. **WARNING: To prevent injury, ensure adjacent vats that contain oil are OFF and covered prior to performing a Clean (Hot [Boil Out] or Cold [Cold Soak]).**		
LEFT (Split vats only)	RIGHT (Split vats only)	Press appropriate arrow to select side.
CLEAN		Press ✓.
BOIL OUT NOW? or COLD CLEAN NOW?	YES / NO	Press (YES) arrow to continue. Press (NO) arrow to cancel and return to OFF.
IS OIL REMOVED?	YES / NO	Press (YES) arrow and go to "IS SOLUTION IN THE VAT?". Press (NO) arrow to continue to next line.
REMOVE FILTER PAN		Remove filter pan and press arrow under CONFIRM.
INSERT DISPOSAL UNIT	CONFIRM	Insert (SDU) shortening disposal unit or METAL pan large enough to contain FOUR gallons (15 liters) or more for FQE30 or FQG30 fryers, or EIGHT gallons (30 liters) or more for 1814E or 1814G fryers under the drain and press arrow under CONFIRM.
START DISPOSE		Press button with blinking LED.
DISPOSING		If the drain becomes clogged, use the Fryer's Friend to clear the blockage.
VAT EMPTY AND CLEAN?	CONFIRM	Press arrow under CONFIRM.
REMOVE DISPOSAL UNIT	CONFIRM	Remove disposal unit and press arrow under CONFIRM.
IS SOLUTION IN THE VAT?	CONFIRM	Ensure solution is in the vat and press arrow under CONFIRM.
BOIL OUT or COLD CLEAN	30:00 countdown timer	The timer starts and if a hot clean the vat heats to 195ºF (91ºC).
BOIL OUT DONE or COLD CLEAN DONE	CONFIRM	Press arrow under CONFIRM to cancel the alarm.
INSERT DISPOSAL PAN	CONFIRM	Insert disposal pan large enough to contain FOUR gallons (15 liters) or more for FQE30 or FQG30 fryers, or EIGHT gallons (30 liters) or more for 1814E or 1814G fryers under the drain and press arrow under CONFIRM.
OPEN DRAIN VALVE		Press button with blinking LED.
DRAINING		None required.
IS SOLUTION REMOVED?	CONFIRM	Press arrow under CONFIRM.
RINSE COMPLETE?	CONFIRM	Rinse the vat with water and press arrow under CONFIRM.
VAT AND PAN DRY?	CONFIRM	Ensure the vat and filter pan are completely dry and press arrow under CONFIRM.
REMOVE DISPOSAL PAN	CONFIRM	Remove the disposal pan and press arrow under CONFIRM.
INSERT FILTER PAN		Insert Filter pan
FILL VAT	CONFIRM	Fill vat with fresh oil and press arrow under CONFIRM when full.
OFF	OFF	

1.9.11 Clean (Hot [Boil Out] or Cold [Cold Clean (Soak)]) (Dispose to Bulk or Front / Manually Fill Vat from JIB)

Left Display	Right Display	Action
Follow steps to Entering Filter Menu Mode on page 1-11. **WARNING: To prevent injury, ensure adjacent vats that contain oil are OFF and covered prior to performing a Clean (Hot [Boil Out] or Cold [Cold Soak]).**		
LEFT (Split vats only)	RIGHT (Split vats only)	Press appropriate arrow to select side.
CLEAN		Press ✓.
BOIL OUT NOW? or COLD CLEAN NOW?	YES / NO	Press (YES) arrow to continue. Press (NO) arrow to cancel and return to OFF.
WASTE TANK FULL	CONFIRM	If waste tank is full, this message is displayed. Press button to CONFIRM and call waste oil provider. Controller displays OFF.
IS OIL REMOVED?	YES / NO	Press (YES) arrow and go to "IS SOLUTION IN THE VAT?". Press (NO) arrow to continue to "START DISPOSE" prompt.
START DISPOSE		Press button with blinking LED.
DRAINING		None required. If the drain becomes clogged, use the Fryer's Friend to clear the blockage.
VAT EMPTY AND CLEAN?	CONFIRM	Press arrow under CONFIRM when empty.
OPEN DISPOSE VALVE		Pull the dispose handle. **(Note: If using front dispose, ensure the wand is connected to the quick disconnect port. Press and hold switch after pulling the dispose handle to dispose oil.)**
DISPOSING	4:00 countdown timer	None required.
REMOVE FILTER PAN		Open the door and pull filter pan out of the cabinet.
IS PAN EMPTY?	YES / NO	Ensure the pan is empty and press (YES) arrow, otherwise press (NO) arrow and follow the prompts (returns to DISPOSING).
INSERT FILTER PAN		Insert the pan.
CLOSE DISPOSE VALVE		Push the dispose handle.
IS SOLUTION IN THE VAT?	CONFIRM	Ensure solution is in the vat and press arrow under CONFIRM.
BOIL OUT or COLD CLEAN	30:00 countdown timer	The timer starts. If hot clean, the vat heats to 195ºF (91 ºC).
BOIL OUT DONE or COLD CLEAN DONE	CONFIRM	Press arrow under CONFIRM to cancel the alarm.
REMOVE FILTER PAN		Open the door and pull filter pan out of the cabinet.
INSERT DISPOSAL PAN	CONFIRM	Insert disposal pan large enough to contain FOUR gallons (15 liters) or more for FQE30 or FQG30 fryers, or EIGHT gallons (30 liters) or more for 1814E or 1814G fryers under the drain and press arrow under CONFIRM.
OPEN DRAIN VALVE		Press button with blinking LED.
DRAINING		None required.

Left Display	Right Display	Action
IS SOLUTION REMOVED?	CONFIRM	Press arrow under CONFIRM.
RINSE COMPLETE?	CONFIRM	Rinse the vat with water and press arrow under CONFIRM.
VAT AND PAN DRY?	CONFIRM	Ensure the vat and filter pan are completely dry and press arrow under CONFIRM.
REMOVE DISPOSAL PAN	CONFIRM	Remove the disposal pan and press arrow under CONFIRM.
INSERT FILTER PAN		Insert Filter pan
FILL VAT	CONFIRM	Fill vat with fresh oil and press arrow under CONFIRM when full.
OFF	OFF	

1.9.12 Clean (Hot [Boil Out] or Cold [Cold Clean (Soak)]) (Dispose to Bulk or Front / Fill Vat from Bulk)

Left Display	Right Display	Action
Follow steps to Entering Filter Menu Mode on page 1-11. **WARNING: To prevent injury, ensure adjacent vats that contain oil are OFF and covered prior to performing a Clean (Hot [Boil Out] or Cold [Cold Soak]).**		
LEFT (Split vats only)	RIGHT (Split vats only)	Press appropriate arrow to select side.
CLEAN		Press ✓.
BOIL OUT NOW? or COLD CLEAN NOW?	YES/NO	Press (YES) arrow to continue. Press (NO) arrow to cancel and return to OFF.
WASTE TANK FULL	CONFIRM	If waste tank is full, this message is displayed. Press button to CONFIRM and call waste oil provider. Controller displays OFF.
IS OIL REMOVED?	YES / NO	Press (YES) arrow and go to "IS SOLUTION IN THE VAT?". Press (NO) arrow to continue to START DISPOSE.
START DISPOSE		Press button with blinking LED.
DRAINING		None required. If the drain becomes clogged, use the Fryer's Friend to clear the blockage.
VAT EMPTY AND CLEAN?	CONFIRM	Press arrow under CONFIRM when empty.
OPEN DISPOSE VALVE		Pull the dispose handle. **(Note: If using front dispose, ensure the wand is connected to the quick disconnect port. Press and hold switch after pulling the dispose handle to dispose oil.)**
DISPOSING	4:00 countdown timer	None required.
REMOVE FILTER PAN		Open the door and pull filter pan out of the cabinet.
IS PAN EMPTY?	YES / NO	Ensure the pan is empty and press (YES), otherwise press (NO) and follow the prompts (returns to DISPOSING).
INSERT FILTER PAN		Insert the pan.
CLOSE DISPOSE VALVE		Push the dispose handle in.
IS SOLUTION IN THE VAT?	CONFIRM	Ensure solution is in the vat and press arrow under CONFIRM.
BOIL OUT or COLD CLEAN	30:00 countdown timer	The timer starts. If hot clean, the vat heats to 195ºF (91 ºC).

Left Display	Right Display	Action
BOIL OUT DONE or COLD CLEAN DONE	CONFIRM	Press arrow under CONFIRM to cancel the alarm.
REMOVE FILTER PAN		Open the door and pull filter pan out of the cabinet.
INSERT DISPOSAL PAN	CONFIRM	Insert disposal pan large enough to contain FOUR gallons (15 liters) or more for FQE30 or FQG30 fryers, or EIGHT gallons (30 liters) or more for 1814E or 1814G fryers under the drain and press arrow under CONFIRM.
OPEN DRAIN VALVE		Press button with blinking LED.
DRAINING		None required.
IS SOLUTION REMOVED?	CONFIRM	Press arrow under CONFIRM.
RINSE COMPLETE?	CONFIRM	Rinse the vat with water and press arrow under CONFIRM.
VAT AND PAN DRY?	CONFIRM	Ensure the vat and filter pan are completely dry and press arrow under CONFIRM.
REMOVE DISPOSAL PAN	CONFIRM	Remove the disposal pan and press arrow under CONFIRM.
INSERT FILTER PAN		Insert Filter pan
FILL VAT FROM BULK?	YES / NO	Press (YES) arrow to fill vat or (NO) arrow to go to OFF.
PRESS AND HOLD YES TO FILL	YES	Press and hold (YES) to fill.
FILLING		Displayed while filling vat.
CONTINUE FILLING?	YES / NO	Press (NO) arrow when full, otherwise press (YES) arrow to continue filling.
OFF	OFF	

1.10 Polishing

The FilterQuick™ controller displays a series of prompts when a polish filter cycle is under way. To initiate a polish, press and hold the ◀ ▶ arrows simultaneously when the controller displays READY. The steps are detailed below. A "WAIT TO POLISH" message may appear until the signal is received that the vat is ready for polish cycle to begin.

Left Display	Right Display	Action
LEFT (Split vats only)	RIGHT (Split vats only)	Press appropriate arrow under side to filter.
POLISH NOW?	YES / NO	Press the (YES) arrow to continue. Press (NO) arrow to bypass a polish and return to previous state; POL DLYD will be displayed. Pressing the ◀ ▶ arrows simultaneously when the controller displays POL DLYD will prompt a polish. If the controller is turned OFF during the polish now prompt, a polish prompt is displayed. If no is selected, the polish prompt will return once the controller is soft powered on again. If the controller is turned OFF when POL DLYD is displayed, the polish prompt will return once the controller is soft powered on again. If polish lockout is enabled, a polish has to be completed on the next prompt.
SKIM VAT or OIL TOO LOW.	CONFIRM or OIL TOO LOW display	Skim the vat and press arrow under CONFIRM. If the oil level is too low, the controller displays "OIL TO LOW". Fill the vat and

Left Display	Right Display	Action
		press either arrow under CONFIRM.
START POLISH		Press button with blinking LED.
DRAINING		None required.
POLISHING	15:00 countdown timer	None required. The oil flows from the filter pan to the frypot and back to the filter pan for 15 minutes. Default is 15 minutes.
FILLING		None required.
-------- or LOW TEMP alternating with the temperature.	-------- or LOW TEMP alternating with the temperature.	Fryer starts heating back to temperature.

1.11 SCAN Mode

The daily stats mode can be used to see current stats about any product quickly throughout the day. Follow the steps below to view stats.

Left Display	Right Display	Explanation/Action
READY	READY	Press the Exit/Scan button.
SELECT PRODUCT		Press a product button to check daily stats.
LONG NAME	8 character product name	Press ▶ to progress to next product stat.
SHORT NAME	4 character abbreviated product name	Press ▶ to progress to next product stat.
COOKS REMAINING	Number or DISABLED	Number of cooks remaining until filter prompt. Press ▶.
COOKS TODAY	Number	Number of cooks completed today. Press ▶.
COOKS SINCE LAST DISPOSE	Number	Numbers of cooks since last dispose. Press ▶.
1 TIME	Time	Time that product is programmed to cook. Press ▶.
1 TEMPR	Temperature	Temperature that product is programmed to cook. Press ▶.
1 SENSITIVITY	Number	The level of sensitivity the product is programmed to cook at. Press ▶.
1 ALARM TIME *	Shake Time	The time during a cook till a product shake alarm occurs. Press ▶.
1 ALARM NAME *	SHAKE. STIR. or NUMBERED ALARM	This is the name of the alarm. Press ▶.
1 ALARM MODE *	AUTO or MANUAL	The alarm mode the product is programmed with. Press ▶.
1 ALARM TONE *	SHORT. MEDIUM. LONG. DOUBLE or	The shake alarm tone the product is programmed with. Press ▶.

Left Display	Right Display	Explanation/Action
	LONG SHORT. NONE	
FILTER PROMPT	NUMBER	The number of cook cycles before a filter prompt occurs. Press ▶.
INSTANT ON	0	This is the time, in seconds, the fryer heats before the controller checks the temperature. **NOTE: An incorrect entry may cause the fryer to overshoot temperature and over cook some products.** Press ▶.
HOLD TIME	0:00 or previously entered time.	The time to hold product before discarding. Press ▶.
EXIT	EXIT	Press Exit/Scan button twice to exit.

* NOTE: If no alarm time is programmed these fields are hidden.

CHAPTER 2: FILTERQUICK™ OPERATOR TROUBLESHOOTING

2.1 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 while you're at it. 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 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 to the technician assisting you.**

⚠ DANGER

Hot oil will cause severe burns. Never attempt to move this appliance when filled with hot cooking oil or to transfer hot cooking 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 factory authorized servicer only.

2.2 Troubleshooting Fryers

2.2.1 Error Messages and Display Problems

PROBLEM	PROBABLE CAUSES	CORRECTIVE ACTION
No display on the controller.	A. Controller not turned on. B. No power to fryer. C. Failed controller or other component	A. Press the ON/OFF switch to turn the controller on. B. Verify that the fryer is plugged in and that the circuit breaker is not tripped. C. Call your FAS for assistance.
Fryer repeatedly cycles on and off when first started with MLT CYCL displayed.	Fryer is in melt-cycle mode.	This is normal when fryer is turned on with oil temperature below 100 F° (38C°).
Heat indicator is on and blower is running, but burner will not ignite.	Blown fuse on interface board or ignition module.	Contact your FAS for service.
Fryer does not heat after filtering.	Drain valve is open.	Verify that the drain valve is fully closed.
Controller displays 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.
Controller displays HI TEMP.	Frypot temperature is more than 40 ºF (4ºC) over setpoint.	Press the power button to turn off fryer and let cool before returning power to fryer. If issue continues call your FAS for assistance.
Controller displays RECOVERY FAULT/ YES and alarm sounds.	Recovery time exceeded maximum time limit.	Clear error and silence the alarm by pressing the ▲ (YES) button. If the error continues call your FAS for assistance.
Controller display is in wrong temperature scale (Fahrenheit or Celsius).	Incorrect display option programmed.	Toggle between F° to C° by pressing the ✓ button until Product setup is displayed. Press ▶ to scroll to Tech Mode and press ✓. Enter 1658. Press the scan button. The controller displays OFF. Turn the controller on to check temperature. If the desired scale is not displayed, repeat.
Controller displays HIGH LIMIT FAILURE DISCONNECT POWER.	Failed high limit	Shut the fryer down immediately and call your FAS for assistance.
Controller displays TEMPR 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.

PROBLEM	PROBABLE CAUSES	CORRECTIVE ACTION
Controller displays HEATING FAILURE.	Contactor issue, gas valve off, failed controller, failed transformer, open high-limit thermostat.	It is normal for this message to appear during startup if a gas fryer's lines have air in them. Check that the gas valve is on. If it continues, shut the fryer down and call your FAS for assistance.
Controller displays SERVICE REQUIRED **followed by an error message.**	An error has occurred which requires a service technician.	Press ▼ (NO) to continue cooking and call your FAS for assistance. In some cases, cooking may not be allowed.
Controller displays IS VAT FULL? YES NO during a cook or in idle mode with an audible alarm.	A. An error has occurred due to carbon buildup on oil level sensor. B. CAN communication issues, component failure issues.	A. If answering yes directs to IS OIL SENSOR CLEAN? CONFIRM, clean the oil level sensor with a scratch pad and power cycle the controller. B. If the issue persists contact your FAS for assistance.
Controller displays IS OIL SENSOR CLEAN? CONFIRM during a cook or in idle mode with an audible alarm.	A. The oil level sensor may be coated with caramelized oil. B. CAN communication issues, component failure issues.	A. Clean sensor with scratch pad. B. If the issue persists contact your FAS for assistance.

2.2.2 Filtration Problems

PROBLEM	PROBABLE CAUSES	CORRECTIVE ACTION
Controller displays IS VAT FULL? YES NO after a filter function.	A. An error has occurred due to carbon buildup on oil level sensor. Normal after some filter menu functions when filling. B. All the oil may not have returned during a filter function due to dirty or clogged filter paper, clogged filter pump, filter pump thermal overload, improperly installed filter pan components, worn or missing O-rings, cold oil or an actuator problem.	A. If answering yes directs to clean oil sensor, clean oil level sensor with a scratch pad and retry. Otherwise press ▲ (YES) if the vat is full, otherwise press ▼ (NO) and follow prompts. B. Check to ensure that the probable causes are remedied. Follow the prompts to refill the vat.
CLEAN. POLISH. FILTER OR DISPOSE **won't start.**	A. Temperature too low or controller displays OFF. B. Messages or errors on other controllers. C. Filter pan not fully engaged.	A. Ensure fryer is at 250°F (121°C) or setpoint before starting; ensure the controller is ON. B. Clear messages and errors on other controllers. C. Ensure the filter pan is in position and fully inserted into the fryer and "A" is displayed

PROBLEM	PROBABLE CAUSES	CORRECTIVE ACTION
		on the MIB board.
Controller displays WAIT FOR FILTER, FILTER BUSY. CLEAN AND FILTER, DISPOSE, DRAIN TO PAN, POLISH, FILL VAT FROM BULK, FILL VAT FROM PAN, BOIL OUT, PAN TO WASTE	A. Another function is still in process. B. MIB has not cleared checking system. C. Messages or errors on other controllers. D. Filter pan not fully engaged.	A. Wait until the previous function ends to start another filtration cycle. B. Wait one minute and try again. C. Clear messages and errors on other controllers. D. Ensure the filter pan is in position and fully inserted into the fryer and "A" is displayed on the MIB board.
Controller displays CHANGE FILTER PAPER?	Filter error has occurred, filter paper clogged, 25 hour filter paper change prompt has occurred or change filter paper was ignored on a prior prompt.	Press ▲ (YES), follow prompts and change the filter paper. Ensure the filter pan has been removed from the fryer for a minimum of 30 seconds. Do **NOT** ignore CHANGE FILTER PAPER prompts.
Controller displays INSERT PAN.	A. Normal during Change Filter Paper routine.	A. Insert pan and press ▲ (CONFIRM) button.
Controller displays OIL IN DRAIN PAN / CONFIRM	Drain valve open or possibility that oil is in drain pan.	Press ▲ (CONFIRM) and follow directions for FILL VAT FROM DRAIN PAN.
Controller displays FLT DYLD	A filter cycle has been delayed.	This is a normal display when a filter has been delayed. After the next filter prompt press YES to filter.
Controller displays POL DYLD	A polish cycle has been delayed.	This is a normal display when a polish has been delayed. After the next polish prompt press YES.
Controller displays CANCEL FILTER? YES/NO	A filter menu function has been requested while another function is in process.	Press YES to keep the desired function in memory. Once the current function is complete, the second requested function will prompt to start. Press NO to cancel requested function and return to OFF.

2.2.3 Using Tech Modes

The FilterQuick™ controller has a Tech Mode menu accessed with Code 3000, which allows clearing of E-log, password reset, lane count, hold mode and high limit test.

Left Display	Right Display	Action
OFF	OFF	Start with the far LEFT controller. Press ✓ until the controller scrolls Info Mode, changing to Main and then PRODUCT SETUP.
PRODUCT SETUP	BLANK	Press ▶ to scroll to Tech Mode. Press ✓.
TECH MODE	ENTER CODE	**Enter 3000**
CLEAR E-LOG	BLANK	Press ✓ to clear error codes. Press ▶. Clears captured error codes.
CLEAR PASSWORDS	BLANK	Press ✓ to clear passwords. Press ▶.
LANE COUNT	2	Press ▲▼ to change Lane Count. Press ▶.
HOLD MODE	STANDARD	Press ▲▼ to toggle to LANE. Press ▶.
HI LIMIT TEST*	BLANK	Press ✓to initiate Hi-Limit test.
HI LIMIT TEST*	YES NO	Press ▲to start; press ▼ to decline. Press ▶.*
EXIT	EXIT	Press Exit/Scan twice.
OFF	OFF	

*This test will ruin the oil and should only be conducted by a technician.

2.2.4 Error Log Codes

Code	ERROR MESSAGE	EXPLANATION
E03	ERROR TEMP PROBE FAILURE	Temp probe reading out of range
E04	HI 2 BAD	High limit reading is out of range.
E05	HOT HI 1	High limit temperature is past more than 410°F (210°C), or in CE countries, 395°F (202°C)
E06	HEATING FAILURE	A component has failed such as controller, interface board, contactor, gas valve, ignition module or open-high limit.
E07	ERROR MIB SOFTWARE	Internal MIB software error
E08	ERROR ATO BOARD	MIB detects ATO board connection lost; ATO board failure
E09	ERROR PUMP NOT FILLING	Dirty pad and it needs changed or it was bypassed; filter pump problem
E10	ERROR DRAIN VALVE NOT OPEN	Drain valve was trying to open and confirmation is missing
E11	ERROR DRAIN VALVE NOT CLOSED	Drain valve was trying to close and confirmation is missing
E12	ERROR RETURN VALVE NOT OPEN	Return valve was trying to open and confirmation is missing
E13	ERROR RETURN VALVE NOT CLOSED	Return valve was trying to close and confirmation is missing
E14	ERROR AIF BOARD	MIB detects AIF missing; AIF board failure

Code	ERROR MESSAGE	EXPLANATION
E15	ERROR MIB BOARD	Cooking computer detects MIB connections lost; MIB board failure
E16	ERROR AIF PROBE	AIF RTD reading out of range
E17	ERROR ATO PROBE	ATO RTD reading out of range
E20	INVALID CODE LOCATION	SD card removed during update
E21	FILTER PAPER PROCEDURE ERROR (Change Filter Paper)	24 hour timer has expired
E22	OIL IN PAN ERROR	Oil may be present in the filter pan.
E23	CLOGGED DRAIN (Gas)	Vat did not empty during filtration
E24	OIL LEVEL SENSOR FAILED (Gas)	Oil level sensor failed.
E25	RECOVERY FAULT	Recovery time exceeded maximum time limit.
E26	RECOVERY FAULT CALL SERVICE	Recovery time exceeded maximum time limit for two or more recovery tests.
E28	HIGH TEMP ALARM	Oil has exceeded 40ºF (4ºC) over setpoint.
E70	OQS TEMP HIGH	Oil temperature is too high for a valid OQS reading. Filter at a temperature between 300ºF (149ºC) and 375ºF (191ºC).
E71	OQS TEMP LOW	Oil temperature is too low for a valid OQS reading. Filter at a temperature between 300ºF (149ºC) and 375ºF (191ºC).
E72	TPM RANGE LOW	The TPM is too low for a valid OQS reading. This may also be seen with fresh new oil. The incorrect oil type may be selected in the setup menu. The sensor may not be calibrated for the oil type. See oil type chart in instruction document 8197316. If issue continues contact a FAS.
E73	TPM RANGE HIGH	The TPM reading is too high for a valid OQS reading. Dispose the oil.
E74	OQS ERROR	The OQS has an internal error. If issue continues contact a FAS.
E75	OQS AIR ERROR	The OQS is detecting air in the oil. Check the O-rings and check/tighten prescreen filter to ensure no air is entering the OQS sensor. If issue continues contact a FAS.
E76	OQS ERROR	The OQS sensor has a communication error. Check connections to the OQS sensor. Power cycle the entire fryer battery. If issue continues contact a FAS.

2.2.5 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. • 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.

CHAPTER 3: FILTERQUICK™ OIL QUALITY SENSOR (OQS)

3.1 OQS Filter Setup

With the controller OFF, follow the steps below. ***NOTE: This should only be done on the far left (Master) controller.**

Left Display	Right Display	Action
OFF	OFF	Press ✓ until the controller scrolls INFO MODE, changing to MAIN and then PRODUCT SETUP.
PRODUCT SETUP		Press ▶ to scroll to Vat setup and press ✓.
VAT SETUP	ENTER CODE	Enter 1656.
SYSTEM		Press ▶ to scroll to FILTER.
FILTER		Press ✓.
COOKS TILL FILTER	0	Press ◀ two times to scroll to OQS and press ✓.
OQS	DISABLED	Press ▼ to scroll to ENABLED and press ▶. (Default is DISABLED.)
CLEAN AND FILTER WITH OQS	CHOICE	Press ▼▲ to scroll to CHOICE, YES or NO and press ▶. (Default is CHOICE.) CHOICE = Prompts for OQS during CLEAN AND FILTER. YES = Performs OQS during CLEAN AND FILTER without a prompt. NO= OQS is disabled during CLEAN AND FILTER.
OQS TYPE	OC01V01	Press ▼▲ to scroll through oil types OC01V01, OC02V01, etc. Use the table on instruction sheet 8197316 to determine the oil type. Ensure the oil type matches what the store is using. When complete press ▶.
DISPLAY TYPE	NUMBER	Press ▼▲ to scroll to choice NUMBER or TEXT and press ▶. (Default is NUMBER.) 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.
DISCARD NOW	24	Use numbered keys to change the default setting of the TPM DISCARD NOW value and press ▶. (Default is 24. Minimum value is 15, maximum value is 30.)
DISCARD SOON	4	Use numbered keys to change the default setting of the TPM DISCARD SOON value and press ▶. This is the offset value from DISCARD NOW which the DISCARD SOON is displayed. Example: If the DISCARD NOW is set at 24, and the DISCARD SOON is desired 4 TPM values below that, set the DISCARD SOON value to 4. (Default is 4. Minimum value is 0=Disabled, maximum value is 15.) Set to "0" to disable DISCARD SOON.
DISPOSE DELAY TIMER	30	Use numbered keys to change default setting for the DISCARD NOW delay timer and press ▶. 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.)
EXIT	EXIT	Press the Exit/Scan button twice to return the controller to OFF.

3.2 INFO MODE: Viewing OQS Total Polar Material (TPM) Stats

The FilterQuick™ collects and stores information on the TPM values. This data is in the info mode, and is accessed by pressing the checkmark key with the controller off or on. The steps to view the data are detailed below.

Left Display	Right Display	Action
OFF/ON	OFF/ON	Press ✓ until INFO MODE is displayed and release.
LAST DISPOSE STATS		Press ◀ two times to scroll to TPM.

Left Display	Right Display	Action
TPM		With the desired stats displayed, press ✓.
Current Day	Current Date	Press ▼ to view TPM.
TPM	Number/– – Current Day	Press ▼▲ to scroll for last measured TPM value that day. Press ▶. **NOTE:** If OQS is not installed; or invalid or no reading is taken, dashed lines are shown.
TPM	Number/– – Current Day	Press ◀ to scroll to TPM values for the previous week. Press ▲to view dates.
EXIT	EXIT	Press the Scan button twice to return the controller to OFF.

3.3 OQS Filter Menus

To access the OQS Filter menu options follow the steps below. All are accessed by pressing and holding the Filter button until the controller displays Filter Menu. If fryer temp is below 300°F the, controller displays "WAIT FOR FILTER". The controller must be on and at or above 300°F to execute a Clean and Filter, an OQS filter. All messages need to be confirmed or cleared on all controllers prior to starting any filtration process.

Entering Filter Menu Mode

Left Display	Right Display	Action
READY	READY	Press the FILTER button until FILTER MENU is displayed for three seconds changing to FILTER.
FILTER		Press ▶ to scroll to Clean and Filter, OQS or Exit. With the desired choice displayed press ✓. Follow instructions on the following pages to navigate the modes. If the filter pan is not fully engaged, the controller displays INSERT PAN. Once the filter pan is pushed fully into place, and the MIB board displays an "A", the filter function continues.

3.3.1 Clean and Filter with OQS (Set to Number)

Left Display	Right Display	Action
Follow steps to Entering Filter Menu Mode above in section 3.3.		
LEFT (Split vats only)	RIGHT (Split vats only)	Press appropriate arrow to select side.
CLEAN AND FILTER		Press ✓.
CLEAN NOW?	YES / NO	Press (YES) arrow to continue. Press (NO) arrow to cancel and return to previous state. See section 1.9.2 for additional information.
SKIM VAT		Skim the vat.
START FILTRATION		Press button with blinking LED.
DRAINING		None required. If the drain becomes clogged, use the Fryer's Friend to clear the blockage
CLEAN OIL SENSOR	CONFIRM	**(Gas Only)** Clean oil sensor with a no scratch pad and press arrow under CONFIRM.
FLUSHING		Use brush and hot oil to wash down crumbs and residue from the frypot walls and foam deck. Use no scratch pad to remove residue. Frypot surface will be hot, use thermal gloves and extreme care.
SCRUB VAT COMPLETE?	CONFIRM	Press arrow under CONFIRM.
OQS FILTER	YES / NO	Press (YES) arrow to continue. Press (NO) arrow to advance to the POLISHING step below. (Follow the arrows to the left.) NOTE: This step may be shown if CHOICE is selected in setup.

Left Display	Right Display	Action
POLISHING	5:00 TIMER	None required. The oil flows from the filter pan to the frypot and back to the filter pan for 5 minutes.
CLOSE DRAIN	CONFIRM	Press arrow under CONFIRM.
FILLING		None required.
TPM	X– / – X alternating	None required. The pump stops and the OQS sensor calculates the TPM value of the oil.
FILLING		None required. The pump continues filling the frypot.
IS VAT FULL?	YES / NO	Press (YES) if the vat is full. Press (NO) to continue filling.
WAIT FOR FILTER	TPM ###	Displays the TPM value. If TPM reading is within limits, skip to OFF step below, otherwise proceed to next step.
DISCARD NOW?	YES / NO	Displayed if the value in OQS SETUP – DISCARD NOW is attained. Press (YES) arrow to continue to DISCARD function. Press (NO) arrow to return to normal operation and skip to OFF (below).
POLISHING	5:00 TIMER	None required. The oil flows from the filter pan to the frypot and back to the filter pan for 5 minutes.
CLOSE DRAIN	CONFIRM	Press arrow under CONFIRM.
FILLING		None required.
IS VAT FULL?	YES / NO	Press (YES) if the vat is full. Press (NO) to continue filling.
OFF	OFF	

3.3.2 Clean and Filter with OQS (Set to Text)

Left Display	Right Display	Action
Follow steps to Entering Filter Menu Mode above in section 3.3.		
LEFT (Split vats only)	RIGHT (Split vats only)	Press appropriate arrow to select side.
CLEAN AND FILTER		Press ✓.
CLEAN NOW?	YES / NO	Press (YES) arrow to continue. Press (NO) arrow to cancel and return to previous state. See section 1.9.2 for additional information.
SKIM VAT		Skim the vat.
START FILTRATION		Press button with blinking LED.
DRAINING		None required. If the drain becomes clogged, use the Fryer's Friend to clear the blockage
CLEAN OIL SENSOR	CONFIRM	**(Gas Only)** Clean oil sensor with a no scratch pad and press arrow under CONFIRM.
FLUSHING		Use brush and hot oil to wash down crumbs and residue from the frypot walls and foam deck. Use no scratch pad to remove residue. Frypot surface will be hot, use thermal gloves and extreme care.
SCRUB VAT COMPLETE?	CONFIRM	Press arrow under CONFIRM.
OQS FILTER	YES / NO	Press (YES) arrow to continue. Press (NO) arrow to advance to the POLISHING step below. (Follow the arrows to the left.) NOTE: This step may be shown if CHOICE is selected in setup.
POLISHING	5:00 TIMER	None required. The oil flows from the filter pan to the frypot and back to the filter pan for 5 minutes.
CLOSE DRAIN	CONFIRM	Press arrow under CONFIRM.

Left Display	Right Display	Action
FILLING		None required.
TPM	X– / – X alternating	None required. The pump stops and the OQS sensor calculates the TPM value of the oil.
FILLING		None required. The pump continues filling the frypot.
IS VAT FULL?	YES / NO	Press (YES) if the vat is full. If TPM reading is below OQS SETUP – DISCARD NOW and DISCARD SOON limits, proceed to OIL IS GOOD step. If TPM reading is below OQS SETUP – DISCARD NOW but above DISCARD SOON limits, proceed to DISCARD SOON step. If TPM reading is above OQS SETUP – DISCARD limits, proceed to DISCARD NOW step.
OIL IS GOOD		None required. Return to normal operation and advance to OFF (below).
DISCARD SOON	CONFIRM	Displayed if TPM reading is below OQS SETUP – DISCARD NOW, but the TPM value has reached the DISCARD SOON limits, press arrow under CONFIRM and advance to OFF (below).
DISCARD NOW?	YES / NO	Displayed if the value in OQS SETUP – DISCARD NOW is exceeded. Press (YES) arrow to continue to DISCARD NOW function. Press (NO) arrow to return to normal operation and advance to OFF (below).
POLISHING	5:00 TIMER	None required. The oil flows from the filter pan to the frypot and back to the filter pan for 5 minutes.
CLOSE DRAIN	CONFIRM	Press arrow under CONFIRM.
FILLING		None required.
IS VAT FULL?	YES / NO	Press (YES) if the vat is full. Press (NO) to continue filling.
OFF	OFF	

3.3.3 OQS Filter with OQS (Set to Number)

Left Display	Right Display	Action
FILTER		Press and hold FILTER button until FILTER is displayed.
LEFT (Split vats only)	RIGHT (Split vats only)	Press appropriate arrow to select side.
OQS		Press the ✓ button.
OQS FILTER NOW?	YES / NO	Press (YES) arrow to continue. Press (NO) arrow to bypass filtration and return to previous state.
SKIM VAT or OIL TOO LOW.	CONFIRM or OIL TOO LOW display	Skim the vat and press arrow under CONFIRM. If the oil level is too low, the controller displays "OIL TO LOW". Fill the vat and press either arrow under CONFIRM.
START FILTRATION		Press button with blinking LED.
DRAINING		None required. If the drain becomes clogged, use the Fryer's Friend to clear the blockage.
FLUSHING		None required.
FILLING		None required.
TPM	X– / – X alternating	None required. The pump stops and the OQS sensor calculates the TPM value of the oil.
FILLING		None required. The pump continues filling the frypot.
IS VAT FULL?	YES / NO	Press (YES) if the vat is full. Press (NO) to continue filling.
WAIT FOR FILTER	TPM ###	Displays the TPM value. If TPM reading is within limits, skip to ---------- or LOW TEMP step below.
DISCARD NOW?	YES / NO	Displayed if the value in OQS SETUP – DISCARD NOW is

Left Display	Right Display	Action
		attained. Press (YES) arrow to continue to DISCARD NOW function. Press (NO) arrow to return to normal operation and advance to next step.
-------- or LOW TEMP alternating with the temperature.	-------- or LOW TEMP alternating with the temperature.	None required. Fryer starts heating back to setpoint.
READY	READY	None required. Displayed once the temperature returns to setpoint.

3.3.4 OQS Filter with OQS (Set to Text)

Left Display	Right Display	Action
FILTER		Press and hold FILTER button until FILTER is displayed.
LEFT (Split vats only)	RIGHT (Split vats only)	Press appropriate arrow to select side.
OQS		Press the ✓ button.
OQS FILTER NOW?	YES / NO	Press (YES) arrow to continue. Press (NO) arrow to bypass filtration and return to previous state.
SKIM VAT or OIL TOO LOW.	CONFIRM or OIL TOO LOW display	Skim the vat and press arrow under CONFIRM. If the oil level is too low, the controller displays "OIL TO LOW". Fill the vat and press either arrow under CONFIRM.
START FILTRATION		Press button with blinking LED.
DRAINING		None required. If the drain becomes clogged, use the Fryer's Friend to clear the blockage.
FLUSHING		None required.
FILLING		None required.
TPM	X– / – X alternating	None required. The pump stops and the OQS sensor calculates the TPM value of the oil.
FILLING		None required. The pump continues filling the frypot.
IS VAT FULL?	YES / NO	Press (YES) if the vat is full. If TPM reading is below OQS SETUP – DISCARD NOW and DISCARD SOON limits, proceed to OIL IS GOOD step. If TPM reading is below OQS SETUP – DISCARD NOW but above DISCARD SOON limits, proceed to DISCARD SOON step. If TPM reading is above OQS SETUP – DISCARD limits, proceed to DISCARD NOW step. If the TPM is out of range or an error occurs, proceed to final step below.
OIL IS GOOD		None required. Return to normal operation and skip to ---------- or LOW TEMP step below.
DISCARD SOON	CONFIRM	Displayed if TPM reading is below OQS SETUP – DISCARD NOW, but the TPM value has reached the DISCARD SOON limits, press arrow under CONFIRM and skip to ---------- or LOW TEMP step below.
DISCARD NOW?	YES / NO	Displayed if the value in OQS SETUP – DISCARD NOW is exceeded. Press (YES) arrow to continue to DISCARD NOW function (see DISPOSE function in Chapter 2). Press (NO) arrow to return to normal operation and advance to next step.
-------- or LOW TEMP alternating with the temperature.	-------- or LOW TEMP alternating with the temperature.	None required. Fryer starts heating back to setpoint.
READY	READY	None required. Displayed once the temperature returns to setpoint.

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