

#### **ULTRASTAT® 23**

Operating Instructions
For the MEC-110 with ENHANCED SMS
10-Product Cooking Controller

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THIS APPLIANCE IS FOR PROFESSIONAL USE AND IS TO BE USED ONLY BY QUALIFIED PERSONNEL

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#### **Notices**



**UFS** is not liable for any use of product not in accordance with **UFS**'s installation and operating instructions.

Before using this equipment, or for any questions on the operation of the appliance, consult and follow all instructions and safety warnings found in the appliance operator's manual supplied from the manufacturer of the appliance.

Not all features are available on some models.

#### Controller Operating Environment

The solid state components in this controller are designed to operate reliably in a temperature range up to  $158^{\circ}F/70^{\circ}C$ . Before installing this controller, it should be verified that the ambient temperature at the mounting location does not exceed  $158^{\circ}F/70^{\circ}C$ .

## Cleaning the Controller

Using a clean damp cloth, wipe down your controller daily using a commercial quality foodservice-approved detergent.

Do not allow oil to build up on any part of the controller.



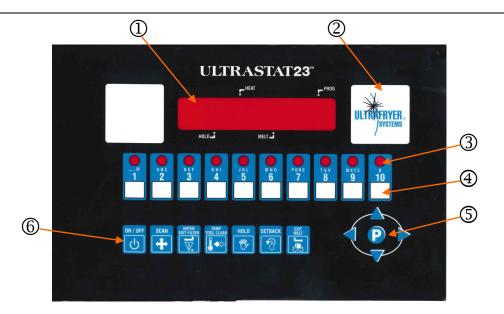
NEVER use chemical or abrasive cleaners on your controller. The controller's overlay may be damaged.

#### **Installation** Tools Required

- Straight Screwdriver
- 1. Turn appliance power OFF.
- 2. Connect the wire harness to the controller.
- 3. Attach the 2 provided tinnerman nuts to the controller. Be sure to line up the holes.
- 4. Hold the controller against the front panel.
- 5. Secure the controller to the appliance using the 2 provided screws.

**Programming** Product Programming 1724 **Codes** System Programming 3228

#### Controller Features



- 1 LARGE LED DISPLAY: 8-character, 14-segment. Displays programming and cook cycle information.
- 2 SERVICE WINDOW: Locate the controller's serial number and tech support phone number easily.
- 3 INDICATOR LIGHTS: lit when there's an active cook cycle and in programming mode.
- 4 PRODUCT KEYS: Press to start a cook cycle. Also used in programming. REPLACEABLE MENU STRIP: Make menu changes quickly and easily.
- 5 PROGRAMMING CENTER: Easy cell phone-like programming. Access programming mode and change cooking parameters.
- 6 FEATURE KEYS: Used to access programming functions and controller features; keys will vary by model.



NOTE: **SCK LINK**: Signifies that your control is communications-capable.

# Features Explained

#### **Programmable Action Alarms**

Up to three action alarms can be programmed for each product key. An action alarm alerts the operator to perform some action at a pre-programmed time.

#### Programmable Appliance Type

A specific type of appliance; i.e., gas, electric or generic can be programmed into the controller.

#### **Energy Saving Manual Setback**

Setback, an **energy-saving feature**, will lower the temperature of the oil after a predetermined amount of inactive time (1 to 59 minutes). Temperature is programmable from 200-300°F (93.3-148.8°C). Enter setback mode by pressing the SETBACK key. The controller will display COOL or SETBACK and will control the appliance to the programmed setback temperature.

#### **Fahrenheit or Celsius Temperature Display**

The controller can be configured to display the temperature in degrees Fahrenheit or Celsius (accessible through System Programming mode).

#### Programmable (FAST.Flex)TM Timing Mode

Flex or straight timing can be configured for each stage on each product key. To insure consistent, high-quality food product, **flex time** will adjust the actual cook time taking into consideration the temperature variation due to load size, initial product temperature, product moisture content, and other factors affecting the cook cycle. If cooking by **straight time**, the controller will cook only for the specified time without adjusting for these variances.

#### Programmable Filter/Polish Mode

To aid in extending the life of your oil, this Meridian Controller will alert the operator at preprogrammed times or number of products cooked when it is time to filter the oil by displaying the FILTER prompt. If the prompt is flashing, cooking can still be performed. If the prompt is solid, the filter procedure must be executed. A filter can also manually be forced at any time of the day.

#### **Programmable Filter Lockout Cycle Count**

Ensure good-tasting food is always served to your customers by requiring the oil be filtered after "x" amount of times. Any product key with Filter Lockout programmed will cease to operate until the oil is filtered. A filter lockout cycle count (valid range is 0 to 99) can be programmed for each product key. To disable filter lockout, enter 0 for the filter lockout count.

#### **Programmable Global Filter Lockout**

A single filter lockout cycle count can be programmed to apply globally to all product keys.

#### **Programmable Hold Time Linking**

Each product key can be linked to an independent hold timer, or multiple product keys can be linked to a single hold timer.

**CONTINUED ON NEXT PAGE** 

# Features Explained

#### **Programmable Hold Times**

Product key hold times can be programmed to track product quality through a specified holding period. Hold time countdown begins as soon as the cook cycle is complete. The controller will sound an alarm when the product's hold time has expired alerting the operator to discard the product.

#### **Automatic Least Hold Display**

Product with the least amount of cook time remaining will be shown in the display. Pressing and hold the SCAN key allows you to view each active product's remaining cook time.

#### Melt Cycle

If the vat temperature is below the Melt Limit Temperature and the controller is ON, it will control the melting of the oil.

#### **Programmable Operating Mode**

The controller can be programmed to operate as either a controller or timer.

#### **Programmable Stage Temperatures**

Cook temperatures for each stage on each product key can be programmed. The valid temperature range is 200°F to 400°F (93.3°C to 204.4°).

#### **Programmable Stage Times**

Cook times for each stage on each product key can be programmed. The controller is programmable in minutes (up to 99) and seconds (up to 59) and allows up to ten stages per product key. Note: Multiple cook starts are not allowed if a product key has more than one stage programmed.

## Operating the Controller





#### Start a Cook Cycle

Press any product key to start a cook cycle. If the key is programmed, the correct cooking time will be displayed and will immediately start to count down in minutes and seconds. DONE will display when the cook cycle has ended. The pressure solenoid will also close if programmed to do so, or a basket lift will lower if so equipped. If DONE is displayed immediately and the unit starts to signal, the product key being pressed is not programmed.

#### Stop a Cook Cycle

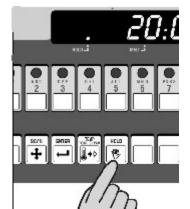
Press and hold an active product key for 3 seconds. Timing will stop.

#### Respond to a DONE Alarm

Cancel the signal by pressing the same product key used to start the cook cycle.

#### **Action Alarms**

If the controller is programmed for action alarms, they will signal at a preset time during the cooking cycle. The signal, a dual-rhythm beeping, will last 5 seconds and then self-cancel. The display will flash the action alarm time and the controller will start counting toward 0:00.



#### **Holding Timers**

If the controller is programmed with holding times, they will automatically start counting upon expiration of the cooking cycle.

When there are active hold times, the HOLD indicator light will be lit.

To **View All Active Hold Times**, press and hold the HOLD key. Upon expiration, the timer will display HOLD and pulse with an audible tone.

To Cancel, press the HOLD key.

## Operating the Controller

CONTINUED

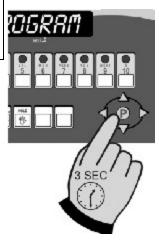
#### **Boil Mode**



CAUTION: THE USER MUST CONSULT AND FOLLOW THE APPLIANCE MANUFACTURER'S GUIDELINES FOR CLEANING AND BOILING OF THE FRY

**VATS.** If your fryer manufacturer recommends this procedure, the boil function accurately maintains the fryer temperature at 190°F (88°C) to assist in the cleaning of fry vats. To start the boil process, turn the appliance OFF. Empty the fry vat of oil. Once the vat is emptied of oil and refilled with cold water, the controller and fryer may now go into boil mode.

The fry vat must be below a temperature of 255°F (124°C) to enter the boil mode.



NOTE: The fry vat will maintain a temperature of 190°F (88°C) to allow the boil function to be performed.

To **Enter Boil Mode**: Press and hold the P key for 3 seconds. PROGRAM will be displayed.

Press the up or down arrow keys until BOIL is displayed, then press the P key. The feature is now activated and BOIL will be displayed.

To **Exit Boil Mode**, press and hold the P key for 3 seconds. PROGRAM will be displayed.

Press the up or down arrow keys until BOIL is displayed, then press the P key. This will exit you from the boil mode. If the controller has an ON/OFF key, you can also exit by pressing OFF and then ON.

**Turn the appliance OFF**. The controller will no longer display BOIL. Empty the water from the vat and wipe away all remaining water. Once dry, refill the vat with oil.



CAUTION: Refill the vat with oil ONLY when it is completely dry.

#### Fill Mode

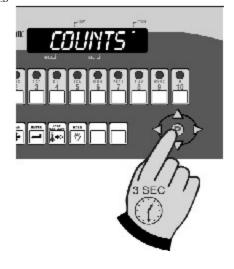


If the controller is programmed for filter lockout, FILTER will appear in the display after the pre-programmed number of cook cycles allowed. The controller will stop operating until the fryer is filtered. After filtering, the display will read FILL. At this time, the fryer MUST be refilled with oil. When this step is complete, press ENTER to resume normal operations.

#### **CONTINUED ON NEXT PAGE**

# Operating the Controller CONTINUED

#### **Product Counts**



To **Check Product Counts**: press and hold the P key for 3 seconds. COUNTS will be displayed.

Press the P key. global will be displayed then the total number of cook counts will be shown.

Press the P key. FILTRCNT will be displayed then your total filter count will be shown.

Press the P key. DISPCNT will be displayed then your total disposal count will be displayed.

Press the P key. TOTALX10 will be displayed then your total x 10 global count will be shown. Then press the P key.

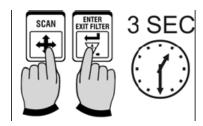
To **Exit Product Counts**: COUNTS will be displayed. Press the up arrow key. EXIT will be displayed. Press the P key. The controller will exit programming mode.

#### Filter / Polish

When filtering is performed, the oil must be dumped from the vat for 3 minutes. The filter countdown will then begin at 7 minutes, at which time the Polish should be performed. At the end of polishing operation, the display will show FILL. Return the oil to the vat.

Press the ENTER/EXIT FILTER key to clear the message and go into an idle state. The oil will be heated to the correct preprogrammed temperature.

#### **Force A Filter**



To **Force A Filter** at any time of the day: press and hold the SCAN and ENTER/EXIT FILTER keys at the same time for 3 seconds. ILTER will be displayed and an alarm will be heard.

Press the ENTER/EXIT FILTER key to start the filtering sequence.

Display Descriptions	LO	Controller is in Operating Mode. Actual vat temperature is more than 10 degrees below the programmed vat temperature.
	DROP READY	Controller is in Operating Mode. Actual vat temperature is within the proper cooking temperature range. The vat is ready to start a cook cycle.
	H	Controller is in Operating Mode. The actual vat temperature is more than 40 degrees above the highest programmed vat temperature. A continuous audible alarm will sound.
	PROBE	Controller's probe is either open or shorted. Display will be accompanied with an audible alarm if shorted. Check or replace the probe.
	2:30	Controller is in Operating Mode and a cook cycle is in progress.
	DONE	Controller is in Operating Mode and a cook cycle has been completed.
	CODE	Controller is waiting for a pass code to be entered.
	PRODUCT	Controller is in Product Key Programming Standby mode.
	TIME 1	Stage cooking time (1-10) is displayed.
	TEMP 1	Stage cooking temperature (1-10) is displayed.
	TIMING 1	Stage timing mode (1-10) (flex or straight) is displayed.
	ALMTIME1	Action alarm status is displayed.
	FILL	After fryer is filtered, this display prompts you to refill the fryer with oil.

SYSTEM

TEMPUNIT

Controller is in System Programming Standby Mode.

Controller is in Appliance Type Programming Mode.

Controller is in Fahrenheit or Celsius Programming Mode.

#### Product Key Programming



18 button controllers have two displays that show a full line of information; for example:

TIME

2:00

#### RECIPE 1724 STORE EMPLOYEE

10 button controllers have a single, dual-purpose display that will alternate information; for example:

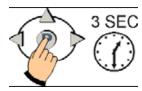
TIME

Then

2:00

# ENTER PROGRAMMING MODE.

Press and hold the P key for 3 seconds.



#### COUNTS

Press the down arrow key.



#### PROGRAM

Press the P key.

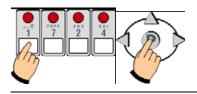




Some controllers may have different options listed.

#### CODE

Type in 1 7 2 4 using the product keys. Press the P key.



#### RECIPE

Press the P key. All product key LEDs will light up.



## PRODUCT

**PROGRAM A PROD-UCT KEY.** Press the product key you want to program. Press the P key.





Depending on model, you can either press the P key to change all programmable settings or you can scroll using the arrow keys to any of the specific options.

### RLL

Press the P key.



## NAME XXXXXXXX

#### SET PRODUCT DIS-PLAY

NAME. NAME will be displayed then the actual product name. Use the up and down arrow keys to scroll through the library. Press the P key to lock in your choice.





# Product Key Programming CONTINUED

## TIME 1 XX:XX

**SET COOK TIME.** Actual set time will be displayed. To change, press toggle Clear to change the time to zero. Type in a new time using the product keys. Press the P key.









#### SET COOK TEMPERATURE.

Actual set temperature will be displayed. To change, press toggle clear to change the temperature to zero. Type in a new temperature using the product keys. Press the P key.







## TIMING 1 STRRIGHT FLEX

#### SET TIMING MODE.

Use the left and/or right arrow keys to choose Straight or Flex. Press the P key.







\*NOTE: On some models, each product key can be programmed with up to 10 stages. If no additional stages are required at this point, set the time to zero. Press the P key to continue to Action Alarm.



#### SET COOK TIME #2.

Actual cook time will be displayed. To change, press toggle clear to change the time to zero. Type in a new time using the product keys. Press the P key. Repeat previous steps.\*







Some models have up to 3 action alarms.



#### SET ACTION ALARM.

Actual alarm time 1 will be displayed. To change, press toggle clear to change the time to zero. Type in a new time using the product keys. Press the P key.







## ALMTIMET XXXXXXXX

#### SET ACTION ALARM

NAME. ALMNAME1 will be displayed, then the actual action alarm name. Use the up and down arrow keys to scroll through the library. Press the P key to either go to next action alarm name, or continue through programming.









continue.

SET ACTION ALARM

ALMCNCL1 will be displayed,

then the action alarm mode. Use

the left and right arrow keys to

choose AUTO or MANUAL.

Press the P key to save and

CANCEL MODE.





#### SET ACTION ALARM

TONE. ALMTONE1 will be displayed, then the action alarm tone: DOUBLE, SHORT, MEDIUM, LONG, LONG SHT, ONE. Use the left and right arrow keys to choose an alarm tone. Press the P key to save and continue.





Product Key Programming CONTINUED

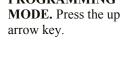
HOLD YES NO

**SET HOLD.** Hold time mode will be displayed. To change, use the left and right arrow keys to choose YES or NO. Press the P key to save and continue.



**SET WEIGHT.** WEIGHT will be displayed, then a number. To change, press toggle clear to change the number to zero. Type in a new weight (1-99) using the product keys. Press the P key to continue.

EXIT PROGRAMMING















EXIT

Press the P key.



Either press another product key to program and repeat the programming instructions, or exit by pressing the up arrow key.



Press the P key.







RECIPE

Press the up arrow key.



Press the P key.



You have now EXITED Product Key Programming Mode and can operate the controller.





#### System **Programming**

**SYSTEM 3228** STORE MANAGER

#### **ENTER SYSTEM PROGRAMMING** MODE. Press and hold the P key for 3 seconds.



#### COUNTS

Press the down arrow key.



#### PROGRAM

Press the P key.



#### CODE

Type in 3 2 2 8 using the product keys. Press the P key.

#### SYSTEM

Press the P key.



#### SET APPLIANCE MODE.

Use the left and/or right arrow keys to choose GAS, ELECTRIC or SPECIAL. Press the P key.





#### SET LANGUAGE.

LANGUAGE will be displayed. To change, use the left and right arrow keys to choose ENGLISH or OTHER. Press the P key to save and continue.

#### **SET CON-**

TROL TYPE. Use the left and/or right arrow keys to choose TEMPERATURE or TIME Control. Press the P key.

#### TONEVOL

#### SET TONE VOLUME.

Use the left and/or right arrow keys to choose 1, 2, 3, 4 or NONE. Press the P key.













# TEMPUNIT

#### SET TEMPERATURE SCALE. Use the left and/or right arrow keys to choose Fahrenheit (F) or Celsius (C). Press the P key.

# HIGH

#### **SET PREHEAT MODE.** Use the left and/or right arrow keys to choose HIGH or LOW. Press the P key.

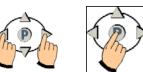
#### PROGRAM SET BACK

TIME. Actual set time will be displayed. To change, press toggle clear to change the time to zero. Type in a new time using the product keys. Press the P key.





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System
Programming
CONTINUED

## SETBTEMP XXXF

PROGRAM SETBACK TEMPERATURE. Actual set temperature will be displayed. To change, press toggle clear to change the temperature to zero. Type in a new temperature using the product keys. Press the P key.



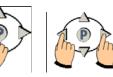
**SET COUNT TYPE.** Use the left and/or right arrow keys to choose PCS (PIECES) or LBS (POUNDS). Press the P key.



SET GLOBAL FILTER COUNT. Actual filter count will be shown (0-999), based on pieces or pounds. To change, press toggle clear to change the count to zero. Type in a new filter count using the product keys. Press the P key.















## DISPENT X

#### SET DISPOSAL COUNT.

(Enter maximum number of pieces or pounds prior to prompt for disposal.) To change, press toggle clear to change the count to zero. Type in a new disposal count using the product keys. Press the P key.



#### SET POLISH OIL TIME.

Previously set time will be displayed. To change, press toggle clear to change the time to zero. Type in a new time using the product keys. Press the P key.



#### FILTERING MODE.

Previously set filter mode will be displayed. Use the left and/or right arrow keys to toggle choices. Press the P key.

















When PROMPT is displayed, the controller will not allow you to start any timing cycles.

#### DELRY

When DELAY is displayed, the controller will allow normal operation of fryer until the ENTER function key is pressed.



**SET NUMBER OF FILTERS PER DAY.** Use the left and/or right arrow keys to choose 0, 1, 2 or NONE. Press the P key.



## **SET FILTER COUNT TIME PROMPT.** Use the left and/or

right arrow keys to set time elapsed since last filter prompt (1-12 hours in 1 hour increments). Press the P key.



**FILTER DELAY.** Use the left and right arrow keys to set :00-4:00 hours. Press the P key.













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System
Programming
CONTINUED



**SET COOK UNIT.** Use the left and/or right arrow keys to choose Minutes/Seconds or Hours/Minutes. Press the P key.



**SET HOLD UNIT.** Use the left and/or right arrow keys to choose Minutes/Seconds or Hours/Minutes. Press the P key.



SET INSTANT ON TIME.

To change, press toggle clear to change the time to zero. Type in a new time using the product keys (0-99:99). Press the P key.













SYSTEM

EXIT SYSTEM PROGRAMMING MODE.

Press the up arrow key.



Press the P key.



You have now EXITED System Programming Mode and can operate the controller.



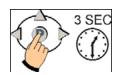


Offset Programming

SYSTEM 3228 STORE MANAGER

# ENTER OFFSET PROGRAMMING MODE.

Press and hold the P key for 3 seconds.





Press the down arrow key.





Press the P key.

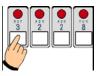




Offset Temperature can be set from 20 to -20F (-6.6 to -28.8C).



Type in 3 2 2 8 using the product keys. Press the P key.





## SYSTEM

Press the down arrow key UNTIL Offset is displayed.



## OFFSET

Press the P key.



#### Offset **Programming** CONTINUED

Use the product keys to enter a new offset temperature. To change from negative to positive, use the left and right arrow keys. Press the P key.

EXIT OFFSET **PROGRAMMING** MODE. Press the down arrow key until EXIT appears.

Press the P key.











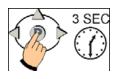
You have now EXITED System Programming Mode and can operate the controller.

#### Programming **Custom Product** and Action Alarm Names to the Library

**SYSTEM 3228 STORE MANAGER** 

#### ENTER LIBRARY PROGRAMMING MODE.

Press and hold the P key for 3 seconds.



#### COUNTS

Press the down arrow key.



### PROGRAM

Press the P key.



#### coos

Type in 3 2 2 8 using the product Press the down arrow key to keys. Press the P key.



select either PRODLIBR OR ALRMLIBR.



Choose either PRODLIBR (Product Library) or ALRMLIBR (Action Alarm Library) by pressing the P key.









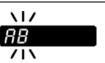


A flashing dash will be displayed. Press the SCAN key and use the product keys to spell a new word. Press the right arrow key to advance to the next character position.









Continue spelling the word. When done, press the P key.



#### 800

TO SAVE WORD, press P again. Skip to Exit Library Programming.



TO CANCEL OR MODIFY, see next step. Programming Custom Product and Action Alarm Names to the Library CONTINUED



TO CANCEL OR MODIFY WORD, press the left or right arrow keys to select CANCEL or MODIFY.



IF YOU CHOOSE CANCEL:

#### CRNCEL

Press the P key to EXIT and cancel the word.



IF YOU CHOOSE MODIFY:



Press the SCAN key to go back



## PRODLIBR ALRALIBR

**EXIT LIBRARY PROGRAMMING.** Press the up or down arrow keys until display reads EXIT.



EXIT

Press the P key.



### READY

You have now EXITED System Programming Mode and can operate the controller.

#### Troubleshooting

PROBLEM	CAUSE	SOLUTION
No Power	Circuit breaker OFF	Check and reset.
	Appliance not plugged in	Plug in cord.
	Defective 24VAC transformer	Replace transformer. Replace controller.
No Sound	Inoperable speaker	Replace controller.
Button Problem	Frozen key	Unplug controller. Hold down the TOGGLE/CLEAR key as you plug controller back in.
	Inoperable key	Replace controller.
PROBE is Displayed	Defective temperature probe	Replace temperature probe
	Probe not plugged in	Plug in probe.
Reading Wrong Temperature	Defective temperature probe	Replace temperature probe.
Not Heating	Defective element relay, contactor or gas valve	Replace defective part.
	Defective controller	Replace controller.

# Parts & Accessories

A. TECHNICAL ASSISTANCE - Contact an authorized service agent or the Customer Service

Department, Ultrafryer

Systems at 1-800-525-8130 for technical assistance. E-Mail technical assistance at: techserv@ultrafryer.com

#### **B. ORDERING INFORMATION:**

 REPLACEMENT PARTS - Provide the following information when ordering replacement parts by phone, fax or mail:

Your company name and phone number

Your company purchase order number

Bill-to address

Ship-to address

Quantity desired

Part number and description of the desired-item Your name or signature of authorized-buyer

Phone in order to: 1-888-331-5013 FAX order to: 1-210-731-5061

Mail order to: Ultrafryer Systems

Order Entry Office P.O. Box 5369

San Antonio, TX 78201

E-Mail your order to: custserv@ultrafryer.com

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