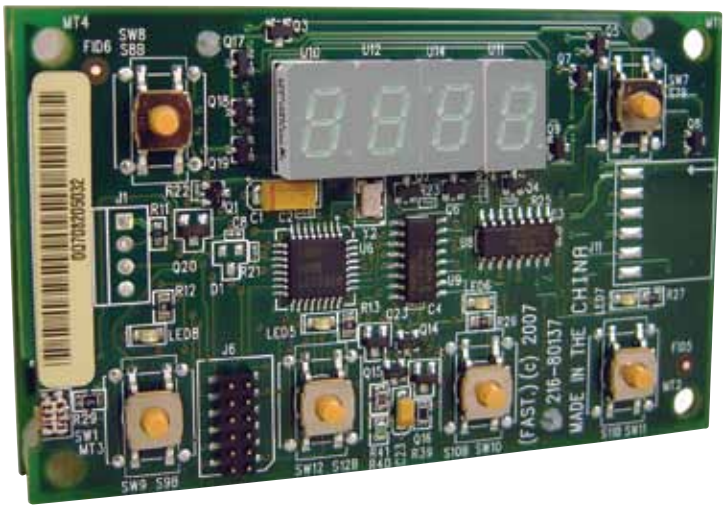
OPERATING AND PROGRAMMING GUIDE

KITCHEN BRAINS
Driven by (FAST.) Networked by SCK

(FASTRON.)® Multi-Parameter Cook Time and Temperature Controller



Operating and Programming (FASTRON.)® Multi-Parameter Cook Time and Temperature Control

Save the instructions
for future reference.
www.KitchenBrains.com

24/7 Toll-Free Technical Support
1-800-243-9271
(from the U.S., Canada and the Caribbean)

Before you start, please read entire manual.

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NOTICES

Kitchen Brains is not liable for any use of product not in accordance with its 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.

Features vary by model.

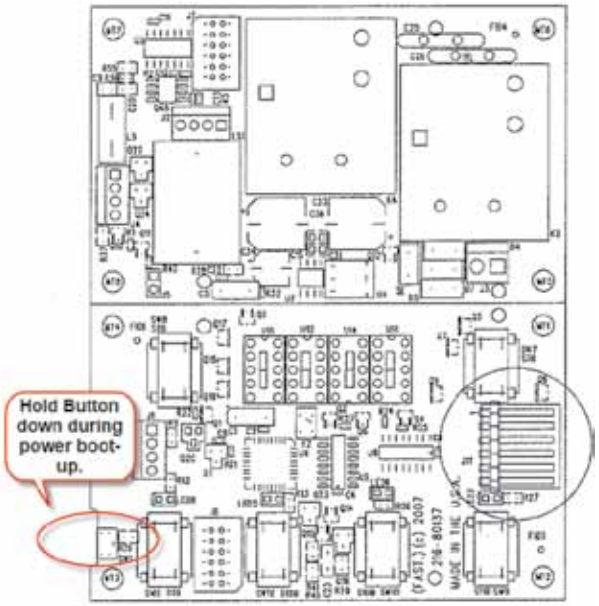
WHEN IN PROGRAMMING MODE, ALL SAFETY AND HEAT DEMAND FUNCTIONS ARE DISABLED.

CONTROLLER OPERATING ENVIRONMENT

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

FOR FACTORY LEVEL PROGRAMMING

To enable factory programming, push and hold button during power boot-up.



OPERATING & PROGRAMMING: OPERATING THE CONTROL

Start a Timing Cycle

Press any product key to start a timing cycle. If the key is programmed, the correct time will be displayed and will immediately start to count down. If the total time is hours and minutes, the display will show XH:XX where X represents time values. When in minutes and seconds, the display will show XX:XX. DONE will display when the cook cycle has ended.

If DONE is displayed immediately and the unit starts to signal, the product key being pressed is not programmed.

Stop a Timing Cycle

Press and hold an active product key for (3) seconds, or press (3) times quickly within (2) seconds.

Respond to a DONE Alarm

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

Action Alarms (Pre-Alarms)

If the control is programmed for action alarms, they will signal at a preset time during the timing 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 control will start counting toward 0:00.

Viewing Actual/Set Temperature(s)

Pressing the Temp Key will display "AXXX" for a single-zone or "tXXX" for a dual-zone controller. Where XXX is the actual temperature in units specified.

The second press of the Temp Key within (5) seconds will display "PXXX"—the programmed temperature of the single zone or initial zone of a dual-zone controller. If the Temp Key is not pressed again within 5 seconds, the display will return to idle or timer.

If a dual-zone controller, the third press of the Temp Key within (5) seconds shall display "bXXX" where XXX is the actual temperature bottom zone of the dual-zone controller.

If a dual-zone controller, the fourth press of the Temp Key within (5) seconds will display "PXXX"—the programmed temperature of the bottom zone of the dual-zone controller.

Viewing Software Version

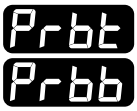
Press the Program Key for (3) seconds. The software revision will then be displayed for a minimum of 3-4 seconds as follows: "r XX" if factory program has been initiated "r=XX" where '=' is the 3 horizontal sections of the 7-Segment display character.

Press the Program Key to return to idle mode.

DISPLAY DESCRIPTIONS

A temperature probe error will indicate "PErr" until the problem has been rectified. All cook cycles will end. A continuous alarm will sound.

A single-zone control probe is either open or shorted. Display will be accompanied by an audible alarm if shorted.



A dual zone control will display top probe error as "Prbt", and bottom probe error as "Prbb". Display will be accompanied by an audible alarm if shorted.

The control is in Operating Mode. The actual appliance temperature is outside the allowable ready band.

The control is in operating mode. The actual appliance temperature is within the allowable ready band. The appliance is ready to start a timing cycle.

The unit is in Operating Mode. The actual appliance temperature is more than 40 degrees above the programmed appliance temperature. An audible alarm sounds simultaneously.

The control is in Operating Mode and a cook cycle is in progress.

The control is in Operating Mode and a cook cycle has been completed.

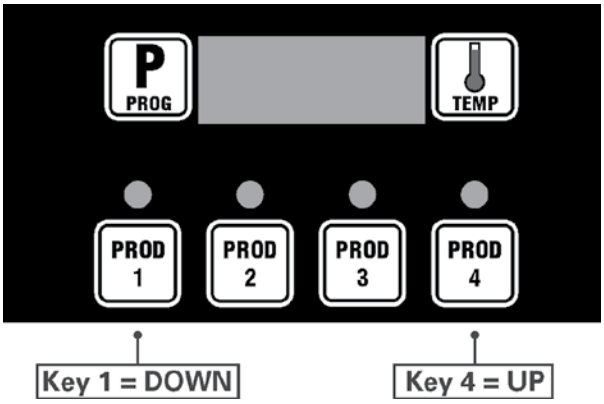
The control is in Product Key Programming Standby Mode.

The control is in Product Key Action Alarm programming Standby mode.

The control is in Cool Mode.

The control is in Melt Cycle.

OPERATING & PROGRAMMING (CONTINUED): PROGRAMMING TIMES



Enter Programming

To enter timer programming, press and hold the Programming key for (3) three seconds. "Prog" will appear in the display.

Programming mode will exit automatically if no keys are pressed within 2 minutes.

Program a Product Total Time Cycle

Select a Product key to program (1 thru 4). The display shall alternate between "ti-z" and "xx:xx" if the time is minutes and seconds, OR "xHxx" if the time is in hours and minutes. Where z is a product number and X is a time value.

If there is no activity within 5 seconds, the display will resume the alternating process.

Adjust the time up or down using the DOWN (key 1) and UP (key 4) keys. The longer the button is held, the faster the time scrolls. The time will be displayed in "HHMM" as follows. (2½ hrs) "2H30". The "H" will always be present if the time is 60 minutes or higher. If the time is less than 60 minutes, the "H" will not appear and the display will revert to a MM:SS scheme.

Once the desired time is reached, press the Programming key to accept/enter.

Program a Pre-Alarm (Action) Time

If a Pre-alarm is desired within the total time cycle, the display will now alternate between "ALrz" and "xx:xx" (if the time is in minutes and seconds), or "xHxx" (if the time is in hours and minutes), as in the case of the timing cycle.

Adjust the time up or down using the DOWN (key 1) and UP (key 4) keys. The time will scroll as in the total time cycle programming.

Once the desired pre-alarm time is reached, press the Programming key to accept/enter. If the Factory Programming input on the processor is disabled, the display will go back to "Prog". The user can now re-program another Product Time Cycle, or Exit Programming.

To program another Product key, press the desired Product key (1 thru 4) and repeat the above programming procedure.

Exit Program Mode

To exit programming, press the Programming key again. The display will go to idle mode.

Factory Programming Enabled Device Type

If Factory Programming was initiated during power up (see page 2) after the pre-alarm (action) time, the display will then alternate between "tyPE" and "x"; where x is the value (1 thru 6) to which the system wide Device Type value is already programmed). To change the Device Type value use the DOWN (key 1) or UP (key 4) keys (see Device Type choices listed below). Once the desired Device Type has been seleccted, press the Programming key to accept and advance to the next setting.

Cool Enabled

After the Device type is selected the display will then alternate between CooL and either YES or no. To either activate (Yes) or disable (no), the Cool mode, use the DOWN (key 1) or UP (key 4) keys. Once the desired setting is selected, press the Programming key to accept the setting and go back to Prog.

Exit Program Mode

To exit programming, with Prog displayed, press the Programming key. The control will go to idle mode.
Temperature Hysteresis Bottom = +/-0F

PROGRAMMING: PROGRAMMING TEMPERATURES

Device Type 1 – Dual Zone Grill Control

Name	Default Value
Temperature Units	F
Temperature Range High	550F
Temperature Range Low	125F
Temperature Ready Band Top	+/-20F
Temperature Set Point Top	338F
Temperature Offset Top	0
Temperature Hysteresis Top	0
Temperature Ready Band Bottom	+/-20F
Temperature Set Point Bottom	338F
Temperature Offset Bottom	0
Temperature Hysteresis Bottom	0
Cool Set temperature	250F
Melt Enable	No
Melt On Time	10
Melt Off Time	25
Cook Time Product 1	1:00
Pre-alarm Time Product 1	0
Cook Time Product 2	2:00
Pre-alarm Time Product 2	0
Cook Time Product 3	3:00
Pre-alarm Time Product 3	0
Cook Time Product 4	4:00
Pre-alarm Time Product 4	0
Cool Enable	No

Device Type 2 – Dual Zone Drawer Warmer

Name	Default Value
Temperature Units	F
Temperature Range High	150F
Temperature Range Low	60F
Temperature Ready Band Top	+/-20F
Temperature Set Point Top	105F
Temperature Offset Top	0
Temperature Hysteresis Top	0
Temperature Ready Band Bottom	+/-20F
Temperature Set Point Bottom	105F
Temperature Offset Bottom	0
Temperature Hysteresis Bottom	0
Cool Set temperature	250F
Melt Enable	No
Melt On Time	10
Melt Off Time	25
Cook Time Product 1	1:00
Pre-alarm Time Product 1	0
Cook Time Product 2	2:00
Pre-alarm Time Product 2	0
Cook Time Product 3	3:00
Pre-alarm Time Product 3	0
Cook Time Product 4	4:00
Pre-alarm Time Product 4	0
Cool Enable	No

Device Type 3 – Single Zone Grill Control

Name	Default Value
Temperature Units	F
Temperature Range High	550F
Temperature Range Low	125F
Temperature Ready Band	+/-20F
Temperature Set Point	338F
Temperature Offset	0
Temperature Hysteresis	0
Cool Set temperature	250F
Melt Enable	No
Melt On Time	10
Melt Off Time	25
Cook Time Product 1	1:00
Pre-alarm Time Product 1	0
Cook Time Product 2	2:00
Pre-alarm Time Product 2	0
Cook Time Product 3	3:00
Pre-alarm Time Product 3	0
Cook Time Product 4	4:00
Pre-alarm Time Product 4	0
Cool Enable	No

Device Type 4 – Single Zone Fryer / Rethermalizer Controller

Name	Default Value
Temperature Units	F
Temperature Range High	385F
Temperature Range Low	85F
Temperature Ready Band	+/-20F
Temperature Set Point	235F
Temperature Offset	0
Temperature Hysteresis	0
Cool Set temperature	250F
Melt Enable	No
Melt On Time	10
Melt Off Time	25
Cook Time Product 1	1:00
Pre-alarm Time Product 1	0
Cook Time Product 2	2:00
Pre-alarm Time Product 2	0
Cook Time Product 3	3:00
Pre-alarm Time Product 3	0
Cook Time Product 4	4:00
Pre-alarm Time Product 4	0
Cool Enable	No

PROGRAMMING: PROGRAMMING TEMPERATURES (CONTINUED)

Device Type 5 – Single Zone Drawer Warmer/ Holding Cabinet

Name	Default Value
Temperature Units	F
Temperature Range High	200F
Temperature Range Low	60F
Temperature Ready Band	+/-20F
Temperature Set Point	130F
Temperature Offset	0
Temperature Hysteresis	0
Cool Set temperature	250F
Melt Enable	No
Melt On Time	10
Melt Off Time	25
Cook Time Product 1	1:00
Pre-alarm Time Product 1	0
Cook Time Product 2	2:00
Pre-alarm Time Product 2	0
Cook Time Product 3	3:00
Pre-alarm Time Product 3	0
Cook Time Product 4	4:00
Pre-alarm Time Product 4	0
Cool Enable	No

Device Type 6 – Single Zone Oven Controller with FAN Output

Name	Default Value
Temperature Units	F
Temperature Range High	550F
Temperature Range Low	60F
Temperature Ready Band	+/-20F
Temperature Set Point	305F
Temperature Offset	0
Temperature Hysteresis	0
Cool Set temperature	250F
Melt Enable	No
Melt On Time	10
Melt Off Time	25
Cook Time Product 1	1:00
Pre-alarm Time Product 1	0
Cook Time Product 2	2:00
Pre-alarm Time Product 2	0
Cook Time Product 3	3:00
Pre-alarm Time Product 3	0
Cook Time Product 4	4:00
Pre-alarm Time Product 4	0
Cool Enable	No

Device Type 7 – Dual Zone Fryer / Rethermalizer Control

Name	Default Value
Temperature Units	C
Temperature Range High	193C (380F)
Temperature Range Low	60C (140F)
Temperature Ready Band Top	+/-20F
Temperature Set Point Top	177C (350F)
Temperature Offset Top	0
Temperature Hysteresis Top	0
Temperature Ready Band Bottom	+/-20F
Temperature Set Point Bottom	177C (350F)
Temperature Offset Bottom	0
Temperature Hysteresis Bottom	0
Cool Set Temperature	121C (250F)
Melt Enable	Yes
Melt On Time	10
Melt Off Time	25
Cook Time Product 1	0
Pre-alarm Time Product 1	0
Cook Time Product 2	0
Pre-alarm Time Product 2	0
Cook Time Product 3	0
Pre-alarm Time Product 3	0
Cook Time Product 4	0
Pre-alarm Time Product 4	0
Cool Enable	Yes

Programming Temperature Units of Measure

Press and hold the TEMP key for (3) seconds. "ProG" will be displayed. Then press the DOWN (key 1) or UP (key 4) key.

The display will show either "°C" or "°F" (Degrees Celsius or Degrees Fahrenheit).

Once the desired temperature unit value is reached, press the Temperature key to accept/enter.

The display will now alternate between "SEtt" and "XXXZ" (where X designates the temperature and Z indicates units of measure).

Programming Set Point Temperature

Adjust the temperature using the DOWN (key 1) and UP (key 4) keys. The longer the button is held, the faster the temperature scrolls.

Once the desired temperature is reached, press the Temperature key to accept/enter.

If TYPE contains 2 zones:

The display will now alternate between "SEtb" and "XXXZ."

Adjust the temperature using the DOWN (key 1) and UP (key 4) keys.

Once the desired temperature is reached, press the Temperature key to accept/enter.

PROGRAMMING: PROGRAMMING TEMPERATURES (CONTINUED)

To exit Temperature Programming, press the Temperature key again. The display shall go to idle mode.

FACTORY PROGRAMMING ENABLED TEMPERATURE CONTROL OPTIONS:

High-Limit Temperature

IF the Factory Programming input on the processor is enabled (see page 2), after programming setpoint temperature, the display will now alternate between "Hi" and "XXXZ."

Adjust the temperature using the DOWN (key 1) and UP (key 4) keys.

Once the desired temperature is reached, press the Temperature key to accept/enter.

Low-Limit Temperature

The display will now alternate between "Lo" and "XXXZ."

Adjust the temperature using the DOWN (key 1) and UP (key 4) keys.

Once the desired temperature is reached, press the Temperature key to accept/enter.

Ready Band Temperature

The display will now alternate between "rbt" and "XXZ."

Adjust the temperature using the DOWN (key 1) and UP (key 4) keys.

Once the desired temperature is reached, press the Temperature key to accept/enter.

Offset Temperature

The display will now alternate between "OFST" and "X2."

Adjust the temperature using the DOWN (key 1) and UP (key 4) keys.

Once the desired temperature is reached, press the Temperature key to accept/enter.

Hysteresis Temperature

The display will now alternate between "HYSt" and "XXZ."

Adjust the temperature using the DOWN (key 1) and UP (key 4) keys.

Once the desired temperature is reached, press the Temperature key to accept/enter.

Cool Down Set Temperature:

The display will alternate between "CLST" and "XXXF". (default = 250F)

Adjust the temperature using the DOWN (key 1) and UP (key 4) keys.

Once the desired temperature is reached, press the Temperature key to accept/enter.

Melt Enable: (Only for Device Type 4 – Single Zone Fryer/ Rethermalizer Controller)

The display will now alternate between "CY" and "NO/YES". (default = NO)

Adjust the setting using the DOWN (key 1) and UP (key 4) keys.

Once the desired melt enable value is reached, press the Temperature key to accept/enter.

If yes is chosen go to Melt On Time.

Melt On Time: (Only for Device Type 4 – Single Zone Fryer/ Rethermalizer Controller)

If melt is enabled, the display will now alternate between "CYOT" and "xx". (default = 10 seconds)

Adjust the time using the DOWN (key 1) and UP (key 4) keys.

Once the desired melt on time is reached, press the Temperature key to accept/enter.

Melt Off Time: (Only for Device Type 4 – Single Zone Fryer/ Rethermalizer Controller)

If melt is enabled, the display will now alternate between "CYFT" and "xx". (default = 25 seconds)

Adjust the time using the DOWN (key 1) and UP (key 4) keys.

Once the desired melt on time is reached, press the Temperature key to accept/enter.

EXIT Programming:

To exit programming, with Prog displayed, press the Temperature key again. The display shall go to idle mode.

NOTE: If TYPE contains 2 zones:

The same programmable options will sequence through Ready, Offset, and Hysteresis for the second zone.

Want to learn more about Kitchen Brains™ products?

Visit our website:
www.KitchenBrains.com

Family Applications

Air Boilers	Bain Marie	Beverage Dispensing
Broilers	Buffets	Cheese Melters
Coffee Dispensing	Dishwashers	Drawer Warmers
Freezers	Fryers	Grills/Griddles
Holding Cabinets	Ice Machines	Jacketed Steam Kettles
Laundry Equipment	Marinators	Ovens (Combi, Micro…)
Pasta Cookers	Product Mixers	Proofers
Refrigerators	Rethemalizers	Smokers
Steam Tables	Toasters	…and Others

Appliance Partner Business Advantages

Kitchen Brains™ controls differentiate appliances and create more sales opportunities for our appliance partners by enabling:

- Consistently high food quality that increases restaurant output
- Lowest lifetime cost of ownership that reduces restaurant operational budgets

Appliance partners become more operationally effective through:

- Single control solution for an entire appliance vs. individual multiple mechanical components (e.g. timer, buzzer, thermostat, displays, remote indicator lamps) reduces overall appliance cost
- Easy software reconfiguration capabilities that allow support of multiple applications by a single controller
- Flexible delivery and Kan-Ban stocking programs
- Multi-faceted team of sales and design professionals available to assist you and your customers

KITCHEN BRAINS

Driven by FASTRON® Networked by SCK

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WARRANTY
Kitchen Brains warrants all new timers, computers, and controllers for 1 year from the date of purchase including computers, controllers, and timers. Kitchen Brains warrants all other items for a period of 90 days unless otherwise stated at the time of purchase.

PATENTS
The products manufactured by Kitchen Brains are protected under one or more of the following U.S. Patents:

5,331,575	5,539,671	5,711,606	5,723,846
5,726,424	5,875,430	6,142,666	6,339,930
6,401,467	6,581,391	7,015,433	7,650,833
7,877,291	8,060,408		

Plus foreign patents and patents pending. Plus licensed patent 5,973,297