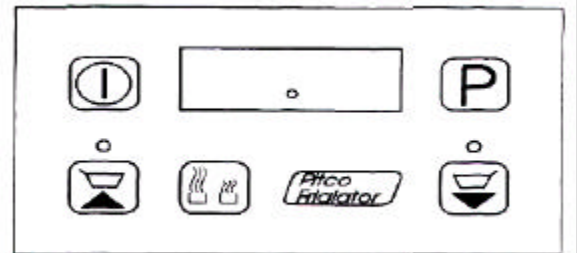
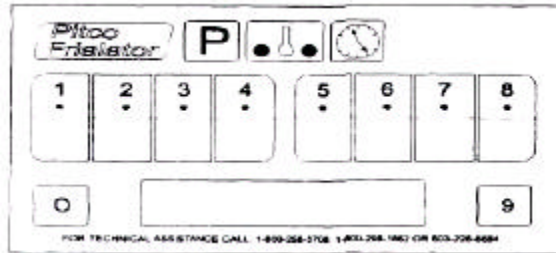
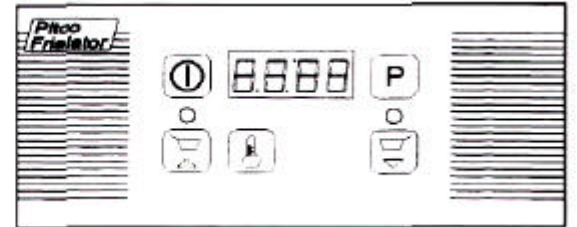
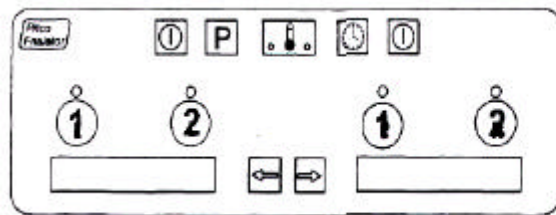


Service Manual

THE PITCO COMPLETE Controller Guide



COVERING INSTALLATION AND CONTROLLER PROGRAMMING



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Literature # L20-097 Rev 1 Rev Date 2 October 1998 Made in the United States of America

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**ALL FRYERS TEMPERATURE PROBE OHMS
RESISTANCE CHART**

TEMP (°F)	RESISTANCE (Ω)
50	180,491
55	158,252
60	139,055
65	122,489
70	108,051
75	95,539
80	84,644
85	75,136
90	66,823
95	59,540
100	53,146
105	47,523
110	42,569
115	38,195
120	34,328
125	30,902
130	27,862
135	25,161
140	22,755
145	20,610
150	18,695
155	16,981
160	15,446
165	14,069
170	12,832
175	11,719
180	10,716
185	9,812
190	8,995
195	8,255
200	7,586
205	6,979
210	6,427
215	5,926
220	5,470
225	5,055

TEMP (°F)	RESISTANCE (Ω)	
230	4,675	
235	4,329	
240	4,013	
245	3,723	
250	3,458	121 C
255	3,214	
260	2,991	
265	2,785	
270	2,596	
275	2,422	
280	2,262	
285	2,114	
290	1,977	
295	1,851	
300	1,734	149 C
305	1,626	
310	1,526	
315	1,433	
320	1,347	
325	1,267	
330	1,192	
335	1,123	
340	1,058	
345	998	
350	942	176 C
355	890	
360	841	
365	795	
370	752	
375	712	190 C
380	675	
385	640	
390	607	
395	576	
400	547	204 C

**PASTA COOKER \ RETHERMALIZER TEMPERATURE
PROBE OHMS RESISTANCE CHART**

TEMP (°F)	RESISTANCE (Ω)
70	975
80	1,020
90	1,060
100	1,101
110	1,147
120	1,189
130	1,234
140	1,274
150	1,320
160	1,364
170	1,409
180	1,454
190	1,493
195	1,512
200	1,533
210	1,575
212	1,617

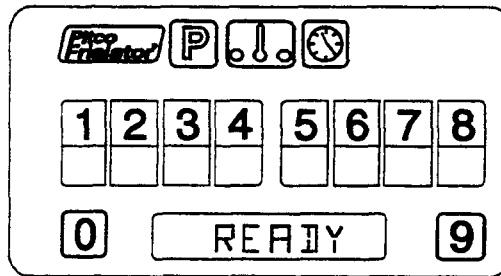
SECTION 1.0

I - 8 /1 -12, 3600 INTELLIFRY COMPUTER PROGRAMMING AND REPLACEMENT INFORMATION

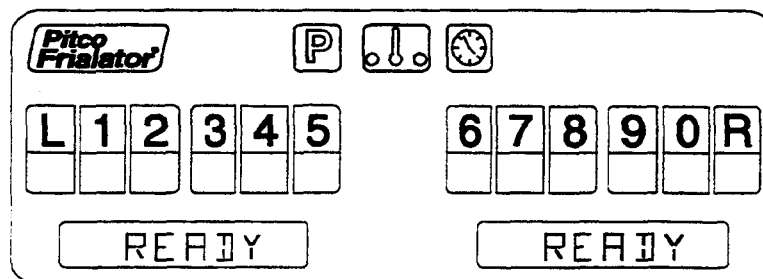
This section contains all programming instructions & function descriptions for the I - 8 /1 -12 computers.

NOTE: When replacing a computer review page 11, 3RD LEVEL PROGRAMMING, MORE SERVICE SECTION, follow computer configuration instructions to match computer programmed settings to fryer computer is to be installed in.

Model
I-8



Model
I-12



OVERVIEW OF ALL COMPUTER CONTROL BUTTONS AT DIFFERENT PROGRAMMING LEVELS

LEVEL 2 PROGRAMMING:

<u>FUNCTION</u>			
<u>KEY</u>	<u>DISPLAY</u>	<u>FUNCTION</u>	<u>PAGE</u>
1	DEGREE	Toggles between Fahrenheit and Celsius	7
2	SET PASS	Turns on, turns off, or changes password	7
3	VOLUME #	Alarm volume level options	7
4	LANGUAGE	Language option English, Spanish, French, German, and Dutch (others could get added)	7
5	LIQUID, SOLID, NO MELT	Melt cycle options	7
6	RECOVERY	Displays fryer recovery times	7
7	CONTROL, TIMER	Sets computer in timer mode or temperature control mode, on a single tank or left side on a dual tank computer	7
8	CONTROL, TIMER	Sets right side of dual tank computer in timer mode or temperature control mode NOTE: Non existent in a single tank computer	7

SERVICE MODEL

LEVEL 3 PROGRAMMING: SERVICE ONLY

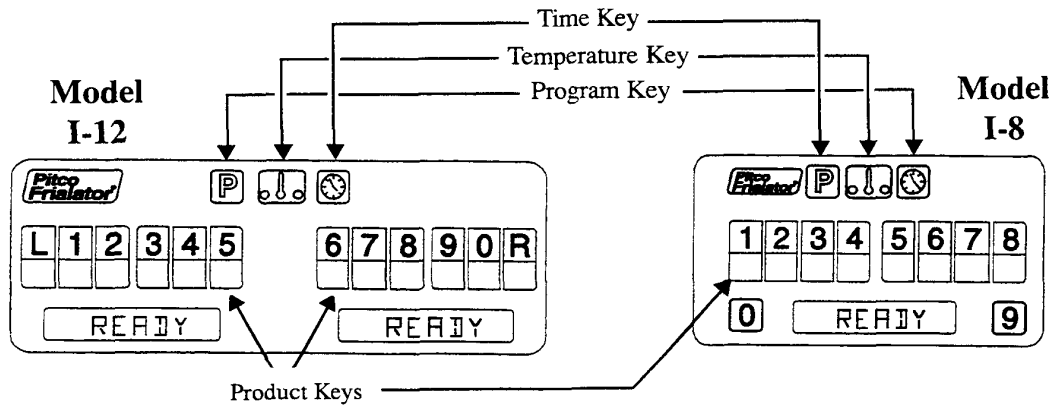
<u>FUNCTION</u>			
<u>KEY</u>	<u>DISPLAY</u>	<u>FUNCTION</u>	<u>PAGE</u>
1	OFF##F	Temperature offset	8
2	MELTON: ##	Duration of time melt cycle is on	9
3	MINON: ##	Minimum time duration burners will be on	9

<u>FUNCTION KEY</u>	<u>DISPLAY</u>	<u>FUNCTION</u>	<u>PAGE</u>
4	RECY###	Temperature recovery times	9
5	DIAGNOST	Diagnostic testing mode	10
6	READY ##	Temperature range at which "READY" will display	11
7	RANGE 1	IDENTIFIES THE TEMPERATURE RANGE THE FIRMWARE FUNCTIONS IN.	11
8	MORE SERVICE	GIVES ACCESS TO AN ADDITIONAL SET OF SERVICE FOLLOWING IN "MORE SERVICE" SECTION. THIS SECTION ONLY AVAILABLE ON COMPUTERS FROM 1998	11
9	BASKET LIFTS	SETS THE NUMBER OF BASKET LIFTS CONTROLLED BY SIDE OF A DUAL TANK COMPUTER AND SETS THE BASKET LIFTS CONTROLLED BY THE RIGHT SIDE OF A COMPUTER	16

MORE SERVICE:

<u>FUNCTION KEY</u>	<u>DISPLAY</u>	<u>FUNCTION</u>	<u>PAGE</u>
1	NOW ON/OFF	COOK NOW ON FUNCTION ALLOWS SECOND BASKET TO BE STARTED WHILE OPPOSITE ALARM IS NOW OFF BLOCKS OPPOSITE BASKET TIMER FROM STARTED.	11
2	TRBO ON/OFF	MUST BE IN ON POSITION IF COMPUTER IS INSTALLED TURBOFRY	12
3	GENERIC 1, GENERIC2, T-STAT, HE RPB, HE ADV	MUST BE SET TO MATCH FRYER MODEL COMPUTER IS INSTALLED IN.	12
4	SH-DUR: ##	DISPLAYS THE SHAKE TIME ALARM DURATION	13
5	HD-DUR: ##	DISPLAYS THE HOLD TIME ALARM DURATION	13
6	CANCEL: ##	DETERMINES THE TIME DURATION A KEY MUST BE DEPRESSED TO CANCEL A FUNCTION	14
7	CFG###F	DISPLAYS THE VALUE OF ALL THE PROGRAMMED THAT HAVE BEEN INSTALLED (EVEN CHANGING ONE FUNCTION KEY COUNT DOWN TIME WILL CHANGE THE CONFIGURATION VALUE)	15
8	FACTORY RESET	RESETS COMPUTER PROGRAMMING TO ORIGINAL SETTINGS.	15

MULTIPLE LEVEL COMPUTER PROGRAMMING INSTRUCTIONS



TO CHECK ACTUAL TEMPERATURE



after 5 secs. machine will return to run mode.



after 5 secs. machine will return to run mode.

TO CHECK COOK, SET, SHAKE AND HOLD TIMES



then the product key desired.

TO ENTER BOIL

Fryer will automatically enter boil mode if water is in tank.

To manually enter boil mode press enter

2	1	2
---	---	---

 (

1	0	0
---	---	---

 if using

“C” mode) when last digit of temperature is entered, boil mode will

start automatically. You must turn off both fryers to exit Boil mode.

CHECKING THE REMAINING TIME WHEN USING MULTIPLE TIMERS

To view remaining time on any function keys when multiple timers are counting is as follows:

PRESS then press function key of any non-displayed active timers you want to view.

FIRST LEVEL PROGRAMMING

USING AND ENTERING FIRST LEVEL PROGRAMMING AND PROGRAMMING FUNCTION KEYS

Press the key (display shows “PROGRAM”), then enter pass word if needed.

If you are unable to remember the set pass word use (6684).

TO PROGRAM SINGLE OR DUAL TANK

COMPUTER SET TEMP LEFT SIDE



enter desired temperature

TO PROGRAM SINGLE OR DUAL TANK

COMPUTER SET TEMP RIGHT SIDE



enter desired temperature

TO SAVE OR EXIT



TO SET COOK TIME



and a product key then enter time

TO SET SHAKE TIME



enter time

TO SET HOLD TIME



enter time

TO SAVE OR EXIT



SECOND LEVEL PROGRAMMING

ENTERING SECOND LEVEL PROGRAMMING

Press the **P** key (display shows "PROGRAM"), then enter pass word if needed.

If you are unable to remember the set pass word use (6684). Then press. You have now entered the upper level programming, all the useable function keys will be lighted and display will show "SELECT OPTIONS".

NOTE: Any time **P** is used to save a setting **0** must be pressed to return to "Select Options" mode.

FUNCTION PROGRAMMING

- 1 FAHRENHEIT/CELSIUS SCALE** - Toggles between Fahrenheit and Celcius scale by pressing the **0** key. Change is saved by pressing the **P** key to set.
- 2 SET PASS WORD** - Toggles the pass word function on and off or install a numeric pass word. Turn pass word on or off **0** chooses "PASS REQ" of "NO PASS". If pass word is chosen then press **P** and current pass word will display. Using the number keys a new pass word can be entered and then set by pressing **P**.
- 3 BEEPER VOLUME** - Allows volume of beeper alarm to be chosen. Press **0** to toggle between volume levels 1,2,3. Press **P** to set.
- 4 LANGUAGE** - Choose between English, Spanish, French, German, and Dutch. Press **0** to toggle between different language options. Press **P** to set.
- 5 MELT CYCLE** - Melt cycle choices: **NO MELT** (melt cycle is turned off). **MELT S** (solid shortening melt cycle), and **MELT L** (liquid shortening melt cycle). Press **0** to toggle between diferent settings. Press **P** to set.
- 6 RECOVERY TEST TIMES** - Displays the factory set and field temperature recovery times starts measuring recovery time at 220°F and ends measurement at 280°F. Factory recovery time is not applicable, use field recovery time to monitor recovery problems. NOTE: Oil level can alter recovery times. Press **0** to display.
- 7 CONTROL / TIMER**- Toggles computer between controlling all fryer functions to timer only, on a single tank computer or left side of a dual tank computer. Press **0** to toggle between "Control and Timer". Press **P** to set.
- 8 CONTROL / TIMER**- Toggles computer between controller and timer only on the right side of a dual tank computer. Press **0** to toggle between "Control and Timer". Press **P** to set.

EXIT SECOND LEVEL PROGRAMMING MODE PRESS FUNCTION KEY.



SERVICE MODE

THIRD LEVEL PROGRAMMING

This level programming is usually factory set and does not need to be changed, the possible exception would be when warranty or non warranty computers are being replaced.

HOW TO ENTER SERVICE MODE PROGRAMMING.

Press the **P** key (display shows **"PROGRAM"**), IF PASS WORD IS REQUIRED, and you are unable to remember the set pass word use (6684). When **"PROGRAM"** appears in display enter code # **6685**, **"SERVICE"** will appear on display and **1** - **8** of the function keys will illuminate.




FUNCTION PROGRAMMING

1

OFF SET TEMPERATURE SETTING - This setting allows you to program a temperature differential between the sensed temperature (at the probe) and the shortening center temperature (cooking area temperature).








- * Enter service mode as described above
- * Press **1** key, display will show **"OFF XX F or C"** (XX represents current setting)
- * Use numbered function keys **0** - **9** to input new off set temperature
- * Press **P** to save new setting. Display will show **"POSITIVE or NEGATIVE"**
Positive causes computer display to read higher than probe is measuring.
Negative causes display to read lower than probe is measuring.
- * Press **0** to choose **POSITIVE or NEGATIVE** offset
- * Press **P** to save changes
- * Press **P P** to return to operation mode

HOW TO ENTER SERVICE MODE PROGRAMMING.

Press the  key (display shows "**PROGRAM**"), IF PASS WORD IS REQUIRED, and you are unable to remember the set pass word use (6684). When "**PROGRAM**" appears in display enter code # **6685**, "**SERVICE**" will appear on display and  -  of the function keys will illuminate.














MELT CYCLE TIME - Sets the time duration the heating system is either ON or OFF, when the fryers is running in the melt cycle. **NOTE:** Solid shortening is the only programmable setting. The computer automatically computes the liquid shorting **ON** and **OFF** times from the solid shortening settings.

- * Use numbered function keys  -  to input **MELT ON** time (Refer to tables on page 17 of manual to find list of correct **ON** and **OFF** times, which correspond to model fryer computer is installed on)
- * Enter service mode as described above
- * Press , Display will show "**MLTONXX**" (XX represents current setting)
- * Press , Display will show "**MELT OFF**"
- * Press  to save changes
- * Press   to return to operation mode



MINIMUM CYCLE TIME - Sets a minimum heating system **ON** and **OFF** time ensuring the system has the necessary time for all its functions to power up and power down. This prevents the unit from short cycling.

- * Use numbered function keys  -  to input **MIN ON** time (Refer to tables on page 15 of manual to find list of correct **ON** and **OFF** times, which correspond to model fryer computer is installed on)
- * Enter service mode as described above
- * Press , Display will show "**MINXX**" (XX = current setting in seconds)
- * Use numbered function keys  -  to input **MINON** time
- * Press , Display will show "**MINOFFXX**" (XX = current setting in seconds)
- * Use numbered function keys  -  to input new **MINOFF** time
- * Press  to save changes
- * Press   to return to operation mode



RECOVERY TIMES - Record the time elapsed for the unit to heat from 230°F to 280°F. **NOTE:** Factory values do not compare to actual field recovery time. Compare recovery time to previous times or other units on site. **NOTE:** Oil level will effect recovery time.

HOW TO ENTER SERVICE MODE PROGRAMMING.

Press the **P** key (display shows **"PROGRAM"**), IF PASS WORD IS REQUIRED, and you are unable to remember the set pass word use (6684). When **"PROGRAM"** appears in display enter code # **6685**, **"SERVICE"** will appear on display and **1** - **8** of the function keys will illuminate.

6 **READY LEVEL** - Controls the range below set temperature **READY** will display so that user knows when product can be dropped.

- * Enter service mode as described above
- * Press **6** key, Display will show **"READY XX"** (XX = current setting in degrees)
- * Use numbered function keys **0** - **9** to input new temperature setting
- * Press **P** to save changes
- * Press **P P** to return to operation mode

7 **TEMPERATURE OPERATING RANGE** - Indicates the temperature range the computer is capable of functioning in. NOTE: This function is factory set and range can not be altered.

- * Press **7**, Display will show **"RANGE 1 XXX - XXX"** (XXX - XXX being factory set temperature range) Currently the factory set range is 200°F to 380°F.
- * Press **P** to save changes
- * Press **P P** to return to operation mode

8 **MORE SERVICE** - Gives access to additional computer function key options, NOTE: Only available on computers produced after 1998.

- * Enter service mode as described above
- * Press **8**, Display will show **"MORE SERVICE"** and all available option indicator lights will illuminate.

1 **COOK NOW FUNCTION** - When function is activated a second timer can be started while the opposite alarm is activated. If function is set **"OFF"**, a second time cannot be activated when alarm is sounding.

- * Press **1**, Display will show **"NOW OFF or NOW ON"**
- * Press **0** to choose **NOW OFF** or **NOW ON**
- * Press **P** to save changes
- * Press **P P P** to return to operation mode

HOW TO ENTER SERVICE MODE PROGRAMMING.

Press the **[P]** key (display shows "**PROGRAM**"), IF PASS WORD IS REQUIRED, and you are unable to remember the set pass word use (6684). When "**PROGRAM**" appears in display enter code # **6685**, "**SERVICE**" will appear on display and **[1]** - **[8]** of the function keys will illuminate.

[8]

MORE SERVICE CONTINUED

[2]

TURBO - Must be **ACTIVATED** when computer is installed on a **TURBO** fryer, or unit will not function. This function must be **DEACTIVATED** when installed on all other fryers.

- * Enter service mode as described above
 - * Press **[8]**, Display will show "**MORE SERVICE**" and all available option key indicator lights will illuminate.
 - * Press **[2]**, Display will show "**TURBO ON** or **TURBO OFF**"
 - * Press **[0]** to choose **TURBO ON** or **OFF**
 - * Press **[P]** to save changes
- Press **[P]** **[P]** **[P]** to return to operation mode

[3]

COMPUTER CONFIGURATION SETTING - Programming must be set in the computer to match the fryer unit the computer is being installed in. When our computers are powered up, the first thing to appear on the display will be the computer number and revision #. On computers with revision #215 or greater, the configuration the computer is set on will also display with the computer # and revision #.

GENERIC1 - is used for all standard gas fryers and will Display #4 revision code
GENERIC2 - is used for all electric fryers and will Display #5 with revision code
T-STAT - is used for all Turbo fryers or used on standard fryers and will Display #1 with revision code **custom request only**. **NOTE: If used on Turbo fryers, the Turbo ON function must be selected, found in LEVEL 3 PROGRAMMING / MORE SERVICE section, under [2] function key.**

HE RPB - used on High Efficiency RPB fryers and will Display #2 with revision code.

HE ADV - used on High Efficiency Advanced Gas fryers and will Display #3 with revision code

HE RPB - used on High Efficiency RPB fryers and will Display #2 with revision code.

HE ADV - used on High Efficiency Advanced Gas fryers and will Display #3 with revision code.

HOW TO ENTER SERVICE MODE PROGRAMMING.

Press the **P** key (display shows "**PROGRAM**"), IF PASS WORD IS REQUIRED, and you are unable to remember the set pass word use (6684). When "**PROGRAM**" appears in display enter code # **6685**, "**SERVICE**" will appear on display and **1** - **8** of the function keys will illuminate.

8

MORE SERVICE CONTINUED

- * Enter service mode as described above
- * Press **8**, Display will show "**MORE SERVICE**" and all available option key indicator lights will illuminate.
- * Press **3**, Display will show one of the following as the installed setting: "**GENERIC1, GENERIC2, T-STAT, HE RPB, or HE ADV**"
- * Press **0** to choose desired option that matches unit computer is being installed on
- * Press **P** to save changes
- * Press **P P P** to return to operation mode

4

SHAKE ALARM DURATION - Sets the time duration alarm sounds, when alarm is activated

- * Enter service mode as described above
- * Press **8**, Display will show "**MORE SERVICE**" and all available option key indicator lights will illuminate.
- * Press **4**, Display will show "**SH-DURXX**" (XX = current duration time)
NOTE: Duration time can be set from 3 to 98 seconds. A setting of 99 will allow alarm to sound until it is manually shut off or cook time alarm sounds.
- * Use numbered function keys **0** - **9** to input new alarm duration time
- * Press **P** to save changes
- * Press **P P P** to return to operation mode

HOW TO ENTER SERVICE MODE PROGRAMMING.

Press the **P** key (display shows "**PROGRAM**"), IF PASS WORD IS REQUIRED, and you are unable to remember the set pass word use (6684). When "**PROGRAM**" appears in display enter code # **6685**, "**SERVICE**" will appear on display and **1** - **8** of the function keys will illuminate.

8

MORE SERVICE CONTINUED

5

HOLD ALARM DURATION - Sets the time duration alarm sounds, when alarm is activated

- * Enter service mode as described above
- * Press **8**, Display will show "**MORE SERVICE**" and all available option key indicator lights will illuminate.
- * Press **5**, Display will show "**HD-DURATION XX**" (XX = current duration time) **NOTE:** Duration time can be set from 3 to 98 seconds. A setting of 99 will allow alarm to sound until it is manually shut off
- * Use numbered function keys **0** - **9** to input new alarm duration time
- * Press **P** to save changes
- * Press **P P P** to return to operation mode

6

CANCEL DURATION - Determine the amount of time a function key must be depressed to cancel a timing or alarm sequence

- * Enter service mode as described above
- * Press **8**, Display will show "**MORE SERVICE**" and all available option key indicator lights will illuminate.
- * Press **6**, Display will show "**CANCEL XX**" (XX = current setting in seconds)
- * Use numbered function keys **0** - **9** to input new cancel duration time
- * Press **P** to save changes
- * Press **P P P** to return to operation mode

HOW TO ENTER SERVICE MODE PROGRAMMING.

Press the **[P]** key (display shows "**PROGRAM**"), IF PASS WORD IS REQUIRED, and you are unable to remember the set pass word use (6684). When "**PROGRAM**" appears in display enter code # **6685**, "**SERVICE**" will appear on display and **[1]** - **[8]** of the function keys will illuminate.

[8]

MORE SERVICE CONTINUED

[7]

CONFIGURATION VALUE - Displays the value total of all programmed functions that have been installed. (Changing any setting in the computer, even one function key count down time will change the configuration value.)

- * Enter service mode as described above
- * Press **[8]**, Display will show "**MORE SERVICE**" and all available option key indicator lights will illuminate.
- * Press **[7]**, Display will show "**CONFIG XXXX**" (XXXX = current configuration value)
- * Press **[P]** to Exit
- * Press **[P]** **[P]** **[P]** to return to operation mode

[8]

FACTORY RESET - Will reset programming of computer to factory specifications. After using reset function computer must be configured using function key # **[3]** in more service section and follow directions in that section. NOTE: This function is only available on computer revision #215 and greater.

- * Enter service mode as described above
- * Press **[8]**, Display will show "**MORE SERVICE**" and all available option key indicator lights will illuminate.
- * Press **[8]**, Display will show "WAIT" and then display will show "P".
- * Press **[P]** Display will show "MORE SERVICE".
- * Follow instructions for computer configuration function # **[3]** in more service section on page 13.

HOW TO ENTER SERVICE MODE PROGRAMMING.

Press the **[P]** key (display shows "**PROGRAM**"), IF PASS WORD IS REQUIRED, and you are unable to remember the set pass word use (6684). When "**PROGRAM**" appears in display enter code # **6685**, "**SERVICE**" will appear on display and **[1]** - **[8]** of the function keys will illuminate.

END OF "MORE SERVICE"

[9]

BASKET LIFTS - Programs the computer how many baskets lifts it has to control from the left side of a dual tank computer, and how many basket lifts it has to control on the right side of a dual tank computer.

NOTE: Does not exist in a single tank computer

- * Press **[8]**, Display will show "L BSKTS1 or 2"
- * Press **[0]** to choose 1 or 2 basket lifts on left side
- * Press **[P]**, Display will show "R BSKTS1 or 2"
- * Press **[0]** to choose 1 or 2 basket lifts on right side

DEFAULT
MINIMUM HEAT ON & MINIMUM HEAT OFF TIMES
MINIMUM MELT ON & MINIMUM MELT OFF TIMES
TABLES

GENERIC 1 TIME SETTINGS

<u>MIN HEAT</u>		<u>MIN MELT</u>	
FUNCTION	TIME IN SECONDS	FUNCTION	TIME IN SECONDS
MIN ON	5	MIN ON	8
MIN OFF	5	MIN OFF	26

GENERIC 2 TIME SETTINGS

<u>MIN HEAT</u>		<u>MIN MELT</u>	
FUNCTION	TIME IN SECONDS	FUNCTION	TIME IN SECONDS
MIN ON	5	MIN ON	8
MIN OFF	5	MIN OFF	32

T - STAT (NON TURBO) TIME SETTINGS

<u>MIN HEAT</u>		<u>MIN MELT</u>	
FUNCTION	TIME IN SECONDS	FUNCTION	TIME IN SECONDS
MIN ON	5	MIN ON	8
MIN OFF	5	MIN OFF	26

T - STAT TURBO TIME SETTINGS

<u>MIN HEAT</u>		<u>MIN MELT</u>	
FUNCTION	TIME IN SECONDS	FUNCTION	TIME IN SECONDS
MIN ON	20	MIN ON	8
MIN OFF	20	MIN OFF	32

HE ADV TIME SETTINGS

<u>MIN HEAT</u>		<u>MIN MELT</u>	
FUNCTION	TIME IN SECONDS	FUNCTION	TIME IN SECONDS
MIN ON	10	MIN ON	15
MIN OFF	10	MIN OFF	38

HE RPB TIME SETTINGS

<u>MIN HEAT</u>		<u>MIN MELT</u>	
FUNCTION	TIME IN SECONDS	FUNCTION	TIME IN SECONDS
MIN ON	10	MIN ON	12
MIN OFF	10	MIN OFF	38

SECTION 1.1

3600 Standard Computer Trouble Shooting

For Revisions 215 And Up

Definitions

NVRAM (Non Volatile Random Access Memory also known as Electronically Erasable Read Only Memory): Memory area that can be modified during operation and retain that modified information after power is turned off and on. The NVRAM is the area into which specific configurations are downloaded at the Pitco factory. Values are also modified during normal operation and/ or store-level programming.

RAM (Random Access Memory) memory that is populated on power up from the ROM (Read Only Memory) or the NVRAM. Values are continually modified during operation but changes are not retained after power is turned off and on.

Notes

- 1) RAM_Err (RAM error) indicates that corruption of the RAM has been detected on power up. If RAM_Err is displayed, further operation is inhibited unless error clears with turning power off and on.
- 2) NVM_Err (NVRAM error) indicates that the NVRAM write operation has failed. This error will change to CFG_Err upon turning power off and on.
- 3) CFG_Err (Configuration error) indicates that corruption of the NVRAM has been detected. This error normally requires a restore function to fix.
- 4) DFT_Err (Default error) indicates that illegal value of parameter in NVRAM has been detected on power up. If DFTJErr is displayed alone (no associated CFG_Err), during operation, then a corruption of the RAM is indicated which will reset upon turning power off and on.

General Information

All of these error messages will alternate with normal display except for the RAM_Err.

Any abnormal display or operation can occur if a noise event occurs which is large enough to cause a reset or partial reset of the microprocessor. Turning power off and on should clear this type of fault.

Resetting Computer

An error reset attempt can be done by unplugging wiring harness on back of computer. If this does not reset computer follow Factory Reset Instructions listed on page 15.

If computer will not reset replace computer

SECTION 1.2

1-12 COMPUTER REPLACEMENT AND INSTALLATION INSTRUCTIONS

When replacing or installing the 1-12 (3600 Intellifry Computer) The computer must be programmed to match the fryer the computer is being installed on. **Note: This only applies to Revision 207 computers and higher**

If the computer is not configured to match the fryer it is being installed on improper operation of the fryer may occur.

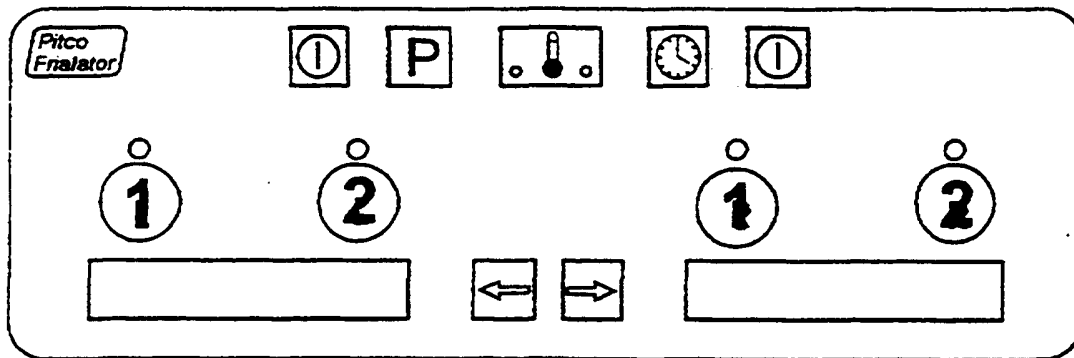
Remove old computer, inspect old computer for cause of failure, and ensure that front panel components and wires are in proper order.

Install new computer and follow COMPUTER CONFIGURATION SETTING instructions from page 12 and 13 of this manual.

SECTION 2.0

McDonald's Computer

BASIC OPERATION



TO TURN UNIT ON

Either Key for Full Vats. Both Keys for Split Vats.

Left key for left vat, Right key for right vat.

TO CHECK ACTUAL TEMPERATURE

After 5 secs. machine will return to run mode.

TO CHECK SET TEMPERATURE

After 5 secs. machine will return to run mode.

TO SCROLL TO DIFFERENT PRODUCT

For Full Vat or left display of Split Vat.

For right display of Split Vat.

Use arrow keys to scroll to desired product.

BASIC PROGRAMMING

ENTER PROGRAM MODE

To program left Split Vat or Full Vat.

To program right Split Vat.

Use arrow keys to scroll to desired product.

SELECT PRODUCT DISPLAY OPTION

To toggle display between "SHOW YES" and "SHOW NO".

PROGRAM SET TEMPERATURE

SET TEMP will be displayed.

Use arrow keys to set hundreds.

Use arrow keys to set tens.




Use arrow keys to set ones.


To accept setting and return to Programming Mode.









BASIC PROGRAMMING CONTINUED




PROGRAM PRODUCT TIMERS


   To select SHAKE, REMOVE, or QUAL timer.

 Displays time value.


   Use arrow keys to set minutes.

   Use arrow keys to set tens of seconds.

   Use arrow keys to set seconds.

 To accept setting and return to Programming Mode.



TO EXIT PROGRAM MODE

  Return to run mode.



Each side of Split Vat must be programmed separately!

OPTIONS MODE

TO ENTER OPTION MODE

  Until OPTIONS is displayed.




    To select desired option.

  To select desired option.


RECOVERY TIME

 then   To view times.


HI LIMIT

 then press and hold  To test first limit, press and hold 
to test second limit.





BOIL

 To start Boil Timer. Timer will start when vat reaches 195°F.




CALIBRATE

 To display actual temperature.




VOLUME A

 then   To select alarm volume,  to accept.





VOLUME W

 then  To toggle between high and low volume,  to accept.



DEGREES

 then  To toggle between °F or °C,  to accept.

LANGUAGE

   To select desired language,  to accept.






FRYER TYPE

 then  To toggle between gas and electric

TO EXIT OPTION MODE

  to EXIT,  to accept.

FACTORY RESET

     Resets computer to original factory settings. All

specialty product cook times will be lost, and must be re-programmed.

NOTE: If computer locks up and no programming function can be performed, reset to factory settings.

* Chicken cook times are not programmed by the factory.

TEST MENU 1 AND 2 PROGRAMMING CONTINUED

SAVE / SET



To save "PROBE COMP YES or NO." Display will now show

"REMOVE M MAN CNC".

QUALITY TIME



Use arrow keys until display shows "QUAL M MAN CNC".



Display will show current set quality time. Use **1**, **2**, and **1**

to set new quality time.

SAVE / SET



To save new quality set time. Display time will now show

"QUAL MAN CNC".

SAVE / SET



Display will show "T MENU 1 or 2 SHOW YES".

PROGRAM PRODUCT



Display will show "EDIT NO".



Display will show "EDIT YES".



Display will show "T MENU 1 or 2" in left display and right display will be

blank. The "T" will flash.

LETTERS / NUMBERS



Use arrow keys to choose desired letters or numbers needed to

describe new product that will appear on computer display.

NEXT NUMBER or LETTER



To save the first letter or number chosen and moves to the next position.

LETTERS / NUMBERS



Use arrow keys to choose next number or letter to show on display.

NEXT NUMBER or LETTER



To save the number or letter. Continue the previously listed steps until you

have desired message showing on display.

SET / SAVE



To save new product name or number. Display will show "SAVE NO".

CHANGE



Display will show "SAVE YES".

EXIT



Display will show "EDIT NO".

EXIT



New menu item is now programmed and computer is in normal

operation mode.

NOTE: When timers are activated for T MENU or 2, the display will show "DUTY", instead of "SHAKE".

SECTION 2.1

McDonalds Computer Trouble Shooting

For Revisions M62D And Up

Definitions

NVRAM (Non Volatile Random Access Memory also known as Electronically Erasable Read Only Memory): Memory area that can be modified during operation and retain that modified information after power is turned off and on. The NVRAM is the area into which specific configurations are downloaded at the Pitco factory. Values are also modified during normal operation and/ or store-level programming.

RAM (Random Access Memory) memory that is populated on power up from the ROM (Read Only Memory) or the NVRAM. Values are continually modified during operation but changes are not retained after power is turned off and on.

Notes

- 1) RAM_Err (RAM error) indicates that corruption of the RAM has been detected on power up. If RAM_Err is displayed, further operation is inhibited unless error clears with turning power off and on.
- 2) NVM_Err (NVRAM error) indicates that the NVRAM write operation has failed. This error will change to CFG_Err upon turning power off and on.
- 3) CFG_Err (Configuration error) indicates that corruption of the NVRAM has been detected. This error normally requires a restore function to fix.
- 4) DFTJErr (Default error) indicates that illegal value of parameter in NVRAM has been detected on power up. If DFT_Err is displayed alone (no associated CFG_Err), during operation, then a corruption of the RAM is indicated which will reset upon turning power off and on.

General Information

All of these error messages will alternate with normal display except for the RAM_Err.

Any abnormal display or operation can occur if a noise event occurs which is large enough to cause a reset or partial reset of the microprocessor. Turning power off and on should clear this type of fault.

Resetting Computer

An error reset attempt can be done by SOFT OFF/ ON or by unplugging wiring harness on back of computer. Unplugging computer is a more effective way to reset.

Note: If computer is on a split VAT, right side computer plug must be reconnected first, then left or computer will not recognize there are 2 VATS. If this does not work reset computer following Factory Reset Instructions listed on page 21.

If computer will not reset replace computer

SECTION 2.2

McDONALDS COMPUTER REPLACEMENT AND INSTALLATION INSTRUCTION

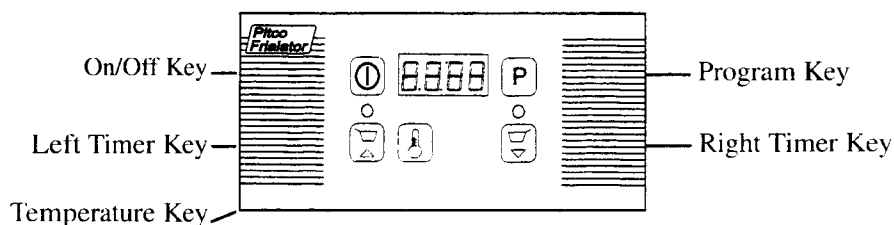
When replacing or installing a McDonalds computer the new computer must be programmed to match the fryer it is being installed on (Gas or Electric).

If the computer is not programmed to match fryer it is installed in improper operation may occur.

Remove old computer, inspect old computer for cause of failure, and ensure that front panel components and wires are in proper order.

Install new computer and follow FRYER TYPE instructions from page 21 of this manual.

DIGITAL CONTROLLER PROGRAMMING INSTRUCTIONS



CONTROLLER FUNCTIONS

ON	to turn controller ON
OFF	hold for 3 seconds to turn controller OFF
LEFT BASKET/TIMER	to start LEFT timer/basket lift
RIGHT BASKET/TIMER	to start RIGHT timer/basket lift
ACTUAL TEMPERATURE	to display ACTUAL temperature
SET TEMPERATURE	to display SET temperature
PROGRAMMING	for programming mode

PROGRAMMING INSTRUCTIONS

ENTERING PROGRAMMING

PROGRAMMING

display will show “LOC” or “XXX” (XXX = current time setting for LEFT timer/basket lift) indicator light will illuminate over function key that is to be programmed

PASSWORD

If display shows “LOC” Press then this will unlock the programming function and allow changes to be made to settings.

SAVE/EXIT

NOTE: Press and hold to save setting or exit at any time in the programming sequence.

LEFT BASKET/TIMER

If display shows “XXX” (XXX = current time set for LEFT timer/basket lift)

Use and function keys to change time setting

RIGHT BASKET/TIMER

Press again, display will show “XXX” (XXX = current time setting) for RIGHT timer/basket lift. Indicator light above RIGHT function key

Use and function keys to change time setting

SET TEMPERATURE

Press again, display will show “XXXF” or “XXXC” (XXX = current set temperature in Fahrenheit or Celsius)

Use and function keys to change temperature setting

MELT CYCLE



Press again, display will show one of the following “Cy S”, “Cy L” or “Cy 0” (Cy S = melt cycle for solid shortening, Cy L = melt cycle for liquid shortening, and Cy 0 = no melt cycle)

Use and function keys to display desired selection

ENTERING PROGRAMMING CONT.



PASSWORD

Press **P** again, display will show “ULOC” or “LOC” (ULOC = unlock, LOC = lock) choosing LOC will block entering programming mode without using pass word described above

Use  and  function keys to display desired selection

F° or C°

Press **P**, display will show “__F” or “__C” (__F = Fahrenheit, __C = Celsius setting)

Use  and  function keys to display desired selection

Press **P** again, display will show “XXX” (XXX = current time set for LEFT timer/basket lift) YOU ARE NOW BACK TO THE BEGINNING OF THE PROGRAMMING LOOP

SAVE SETTINGS OR EXIT PROGRAMMING





Press **P** and hold to save and exit at any time in programming sequence

UPPER LEVEL PROGRAMMING INSTRUCTIONS

PROGRAMMING

Press **P** again, display will show “LOC” or “XXX” (XXX = current time setting for left timer/basket lift) indicator light will illuminate over function key that is to be programmed


PASSWORD



If display shows “LOC” Press   then  , this will UNLOCK the programming function and allow changes to be programmed

SAVE/EXIT

NOTE: To exit press and hold **P**, to save or exit at any time in programming sequence



BASKET/LIFTS

Press and hold **P**, while holding the **P** function key depressed, press  key, display will show “LIF2” or “LIF1”

Use  and  function keys to display desired selection

DISPLAY

Press **P**, display will show “T-0” or “T-1” (T-0 will not show actual temperature in the display unless the key is pressed, T-1 = actual temperature will always show in the display, unless timer is counting down)

Press  and  function keys to change setting

SAVE SETTINGS OR EXIT PROGRAMMING

Press **P** and hold to save and exit at any time in programming sequence

DROP

Indicates fryer is ready for cooking

HEAT

Indicates controller is under temperature set point and burners are on

._

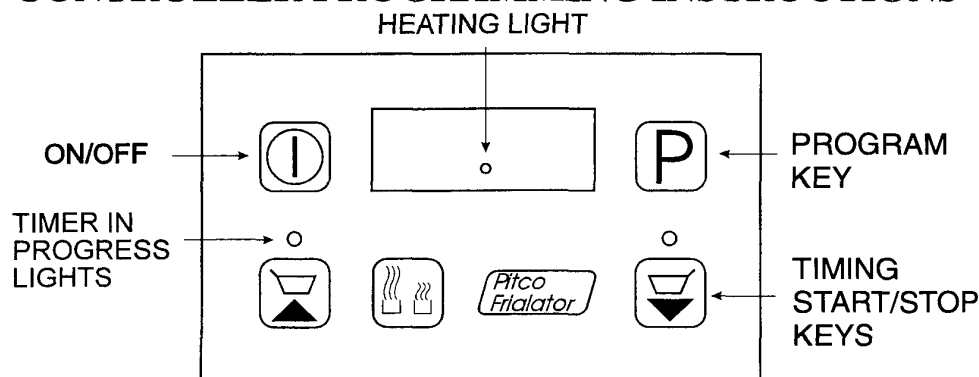
Indicates light, when illuminated, indicators burners are on

.C.y

Indicates unit is in melt cycle

SECTION 4.0

PASTA COOKER AND RETHERMALIZER DIGITAL CONTROLLER PROGRAMMING INSTRUCTIONS



CONTROLLER FUNCTIONS
















- | | | |
|------------------|---|---|
| ON | * | Press to turn controller ON |
| OFF | * | Press and hold for 3 seconds to turn controller OFF |
| L BASKET/ TIMER* | | Press to start LEFT timer/basket lift |
| R BASKET/ TIMER* | | Press to start RIGHT timer/basket lift |
| BOIL SIMMER | * | Press , Display will show " BOIL or SIM " Note: Simmer mode runs at 190 F |
| | * | Press until display shows desired selection |
| PROGRAMMING | * | Press for programming mode |

TIMER PROGRAMMING INSTRUCTIONS


ENTERING LEVEL 1 PROGRAMMING


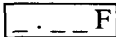
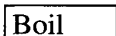

- | | | |
|-----------|---|--|
| | * | Press , Display will show " LOC or Pr09 " (Program) |
| PASSWORD | * | If display shows " LOC " Press then , This will unlock the programming function and allow changes to be made to settings |
| | * | Press , Display will show " Pr09 " (Program) the indicator lights above both and functions key will illuminate. |
| TIMER SET | * | Press or , Display will show " XX " (XX = current timer setting) Indicator above or function key will illuminate to indicate which (left or right) timer is being programmed |
| | * | Press the or function keys to change set time |
| | * | Press to save new timer setting |
| | * | Press to exit programming |

UPPER LEVEL PROGRAMMING INSTRUCTIONS

PROGRAMMING	*	Press  , Display will show "LOC or Pr09" (Program)
PASSWORD	*	If display shows "LOC" Press   then   , This will unlock the programming function and allow changes to be made to settings
	*	Press  , Display will show "Pr09" (Program) the indicator lights above both  and  functions key will illuminate.
SIMMER MODE TEMP	*	Press and hold  for 2 seconds, display will show "XXXX" you are now in SIMMER MODE TEMPERATURE PROGRAMMING (XXXX = current set temperature for the simmer mode)
SAVE / EXIT	*	<u>NOTE:</u> Press and hold  to save setting or exit at any time in the programming sequence.
	*	Press the  or  function keys to change set temperature
ACTUAL TEMP DISPLAY	T 1, T0 *	Press  , Display will show "T 1 or T 0" (T 1 = actual temperature always appearing display window, T 0 = SIM or BOIL will always appear in display window when controller is operation mode)
PASSWORD ET	ULOC * LOC	Press  , Display will show "LOC or ULOC" (LOC = turns pass word function ON so that a pass word is required to enter programming mode, ULOC = turns pass word requirement OFF)
BASKET LIFT	LIF1 *	Press  , Display will show "LIF1 or LIF2" (LIF1 = tells the controller that cooker has only a single basket lift, LIF2 = tells the controller cooker has two basket lifts)

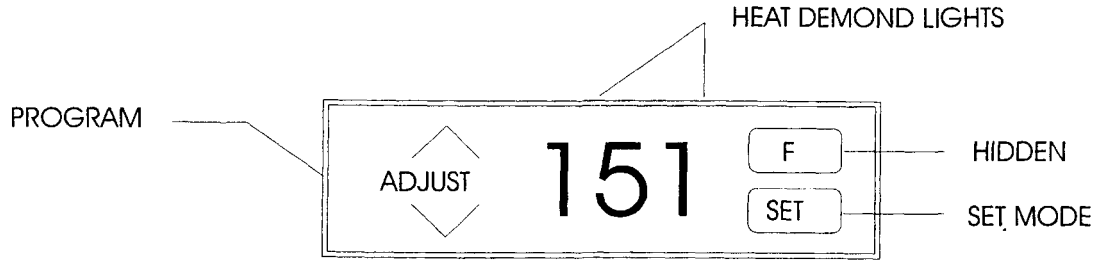
TO SAVE SETTINGS OR EXIT PROGRAMMING

- * **NOTE: Press and hold  to save setting or exit at any time in the programming sequence.**

	Indicates controller is under temperature set point and burners are on
	Indicator light, when illuminated, indicates burners are on
	Indicates unit is in boil mode
	Indicates unit is in simmer mode

SECTION 5.0

REETHERMALIZER / SOUP COOKER DIGITAL THERMOSTAT




PROGRAMMABLE FUNCTIONS

- | | | |
|-----|---|--|
| DF1 | * | Differential temperature - Sets the temperature range above and below the set cook temperature that the heating system cycles on and off |
| HI | * | Maximum controller temperature - Sets the maximum cook temperature that can be programmed into the controller |
| LO | * | Minimum controller temperature - Sets the minimum cook temperature that can be programmed into the controller |
| CAL | * | Calibration range - Enables calibration corrections to be made between actual temperature and sensed temperature at the probe |
| SP1 | * | Set temperature mode - Set temperature is programmed in this mode |













ENTERING PROGRAMMING MODE

A JUMPER WIRE MUST BE INSTALLED BETWEEN TERMINALS +5 AND -3 ON THE BACK OF THE CONTROLLER. CONTROLLER IS NON-PROGRAMMABLE WITHOUT JUMPER WIRE INSTALLED

PROGRAMMING SET TEMPERATURE

- * Press **SET** , Display will show "SP1"
- * Press **SET** , Display will show "XXX" (XXX = current set temperature)
- * Press  to change temperature setting (**NOTE: If set temperature will not adjust to desired setting, check HI and LO temperature settings**)
- * Press **SET** to save new temperature setting

CHANGING PROGRAMMABLE SETTINGS

- DF1 * Press  , Display will show "**DF1**"
- * Press  again, Display will show "**XX**" (XX = current setting)
- * Press  to change setting
- HI * Press  again, Display will show "**HI**"
- * Press  again, Display will show "**XXX**" (XXX = current setting)
- * Press  to change setting
- LO * Press  again, Display will show "**LO**"
- * Press  again, Display will show "**XXX**" (XXX = current setting)
- * Press  to change setting
- CAL * Press  again, Display will show "**CAL**"
- * Press  again, Display will show "**XX**" (XX = current setting) NOTE: This number can be set as a **NEGATIVE** number (-30) or a **POSITIVE** number (+30) above or below set point
- * Press  to change setting

SAVE / EXIT PROGRAMMING MODE

TO SAVE OR EXIT PROGRAMMING MODE AT ANY TIME PRESS F UNTIL DISPLAY SCREEN IS BLANK AND THEN REMOVE JUMPER WIRE.