



**IMPORTANT INFORMATION FOR FUTURE REFERENCE**

Record the following information from the appliance ID plate and retain this manual for the life of the equipment:

Model #: \_\_\_\_\_

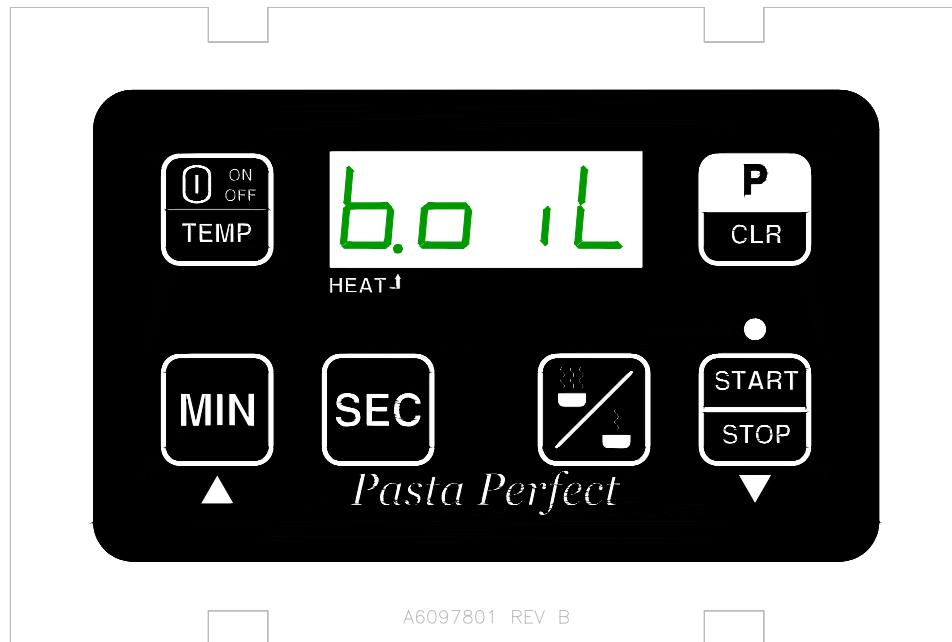
Serial #: \_\_\_\_\_

Date Purchased: \_\_\_\_\_

# **Service Manual**

For Pitco p/n 60158301

## **Compact Digital Pasta Timer**



This control was developed specifically for Pitco Pasta products. It utilizes the latest in microprocessor technology and is completely solid state. This control offers the latest cooking technology. Other features include, drain valve interlock, faulty probe detection, and audible beeper. The simple set and run timer has a range up to 99 minutes and 59 seconds.

This manual details the operation and adjustment of the Compact Digital Pasta Timer. The target audience for this text is the Service Technician. This manual reveals all adjustments that are possible by keyboard entry, including passwords.



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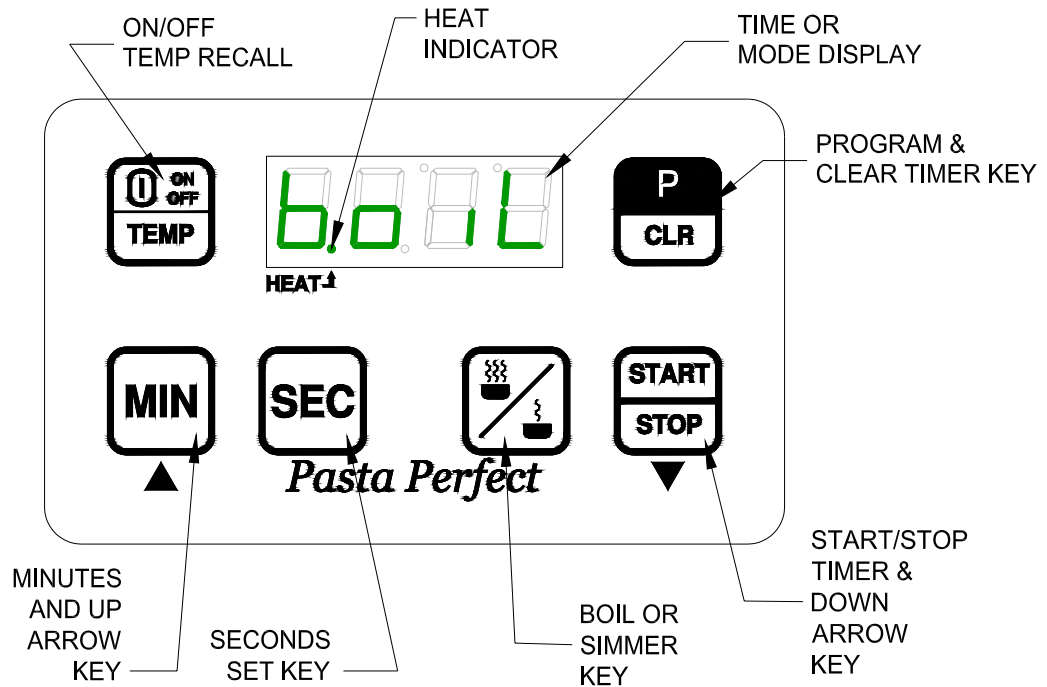
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## 1 Key Locations and Functions:



### 1.1 To Turn the Appliance ON:

If power is applied to the appliance, the display will show **OFF**. Press the key.

Displays will show an alternating display of **5:00**; and **0:00**. The control is heating to the simmer temperature and the timer is not running.

### 1.2 To Turn the Appliance OFF:

Press and hold the key for 3 seconds. Display will show **OFF**.

### 1.3 To Start the Timer:

The timer can be loaded with time value at any time.

#### 1.3.1 Set the Minutes:

Press the MIN key. The minutes portion of the time display will show [ 1:ss]. Continue pressing the [MIN] key to increment the minutes upward. Stop when the desired minutes value is displayed.

- The CLR key can be used to clear an entry.
- The maximum value is 99 minutes.



#### 1.3.2 Set the Seconds:

Press the SEC key. The minutes portion of the time display will show [ mm:01]. Continue pressing the [SEC] key to increment the seconds upward. Stop when the desired seconds value is displayed.

- The CLR key can be used to clear an entry.
- The maximum value is 59 seconds.







### 1.3.3 Start the Timer:

After Minutes and Seconds have been entered above, press the START key. The timer will begin to count down to zero. The timer may be stopped, and cleared as described below.



### 1.3.4 Stop the Timer:

Pressing the STOP key will stop the count down sequence.

- The countdown may be resumed by pressing the  key.
- If needed, the  key may be used to clear any remaining time to zero.



### 1.3.5 Clear the Timer:


Use the clear key when you make a mistake on Minutes and Seconds time entry. If the timer is stopped, it can also clear any remaining time to zero. While the timer is running, the Clear does not function.



## 1.4 Boil or Simmer?



This key toggles between the two heat mode settings, Simmer and Boil.

### 1.4.1 Simmer Setting:

When the control is first tuned on, Simmer is the default setting. It shows in the display as . The appliance will heat the water tank to a set temperature, and control at that temperature. The default setting is 195°F (or 91°C). This temperature may be changed in section 1.6. This is the setting that is used to Rethermalize chilled food.



### 1.4.2 Boil Setting:

When the control is first tuned on, Simmer is the default setting. To change to the boil mode, press the  key. Display now shows . While in boil, the appliance will apply full heat to the tank to cause the water to boil. There is no temperature setting as with the simmer mode. This is the setting that should be used to cook dry pasta product.

To change the current setting, press the  key.

## 1.5 Temperature Key:

Press the temperature key to display the current temperature of the tank. This key may be used while the timer is running.



### 1.6 To Change the Simmer Temperature:

The default simmer temperature of 195°F may be changed with the following steps when the timer is NOT running.

Press and hold the key for 3 seconds. Display will show or .

If the display shows , the control is not locked. Continue with the next step below.

*The factory default setting is unlocked. Refer to section 2.3 to set the lock feature.*

If the display shows , the control is locked.

Press the down key , then the up key

to unlock the control. Display now shows

. Continue with the next step below.

- Press the key. Display now shows .
- Press either the key or the arrow key, to view and adjust the temperature setting.
- Press the key to save value. Display returns to .
- Press and hold the key to exit to normal operations.

## 2 To Enter Level 2 Programming (for technicians and factory use).

To enter this programming menu, press and hold the key for 3 seconds. Display will show or .

If the display shows , the control is not locked. Continue with the next step below.

*The factory default setting is unlocked. Refer to section 2.3 to set the lock feature.*



If the display shows , the control is locked.

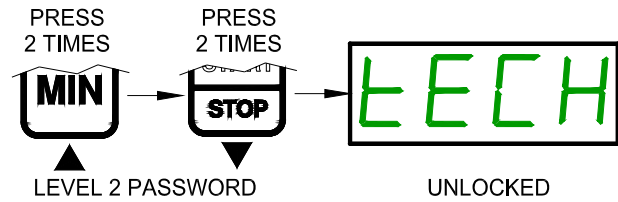
Press the down key , then the up key

to unlock the control. Display now shows

, continue with the next step below.

## 2.1 Password Entry to Level 2 programming

A password is always required to enter Level 2 programming. With display showing , press the Up arrow key twice followed by the Down arrow key twice. Display will show . Control is now ready for Level 2 programming.

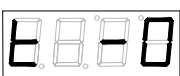
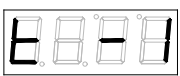
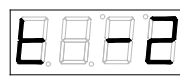





The following describes each setting in the tech menu.

Press the  key to continue.

## 2.2 Display Modes

One of three possible display modes may be selected. *The factory setting for this part is [t-1].* Display shows one of the following settings:




 <p>With this selection, [boil] or [Sim] is displayed when the timer is not counting down.</p> <p><i>The display may also read [---F] when water temperature is below 70°F (21°C). This is typical for cold start-ups.</i></p>	 <p>With this selection, display will alternate between temperature display and mode; either [boil] or [Simm] and the timer value display.</p> <p><i>This is the factory default setting.</i></p>	 <p>While in <b>SIMMER</b> [Simm], display will show an alternating display depending on water temperature.</p> <ul style="list-style-type: none"> <li>When temperature is lower than 10°F below set point. Display will alternate between [Louu] and [Simm].</li> <li>When temperature is greater than 10°F below set point, display will alternate between [drop] and [Simm].</li> </ul> <p>While in <b>BOIL</b> [boil], display will show an alternating display depending on water temperature.</p> <ul style="list-style-type: none"> <li>When temperature is lower than 205°F, display will alternate between [Louu] and [boil].</li> <li>When temperature is greater than 205°F, display will show only [boil] continuously.</li> </ul>
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To change the current setting for display mode press either the up  key or the down  key to scroll through the choices above. When done press the  key to save choice and continue with the next step.

### **2.3 Password Required?**


To help prevent tampering by operators, the lock feature may be activated. When locked, control will need a password key sequence to make future changes to the simmer temperature.

Display shows  OR  *The factory default is unlocked "ULOC".*

To change the current lock setting, press either the up  key or the down  key to change setting. When done press the  key to save choice and continue with the next step.

### **2.4 Display in degrees °F or °C**




The control can display temperatures in the Fahrenheit or Celcius scales. *The factory default is °F.*

Display shows  OR 

To change the current setting, press either the up  key or the down  key to scroll through the choices. When done press the  key to save choice and continue with the next step.

### **2.5 Number of Basket Lifts?**

Most Pitco appliances offer a basket lift option. Here is the setting is for the number of basket lift outputs in use. Choices are; none, 1, or 2. *Factory setting for this control is [LIF 1] for one basket lift enabled. If basket lifts are not supplied, any setting is acceptable.*




Display shows  OR  OR .

To change the current setting, press either the up  key or the down  key to scroll through the choices. When done press the  key to save choice and continue with the next step.



### **2.6 Standing Pilot?**

Some methods of restaurant operation benefit by standing the pilot when the appliance is turned off. The waste heat from the pilot flame helps to keep the tank warm, allowing for quicker warm-up after a shut-down. The down side is increased fuel usage to stand the pilot while off. *The factory setting for standing pilot is [SP 0], or OFF.*

Display shows  or .

To change the current setting, press either the up  key or the down  key to scroll through the choices. When done press the  key to save choice and continue with the next step.

## 2.7 Exit Level 2 Programming

Display shows . Press and hold the  key for 3 seconds.

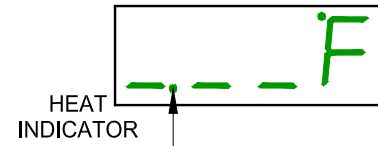
Display returns to normal operating displays:



## 3 Other Displays:

### 3.1 Low Vat Temperature:

When tank temperature is below 70°F (25°C), the display will show as blanks. This is normal for cold start-ups. **Heat Demand** indicator is located between the first and second digits of display.

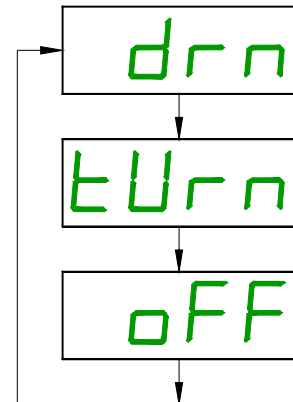


### 3.2 Drain Valve Open:

When drain valve is detected open, normal operations are suspended. The display will show Drain-Turn-Off message until reset.

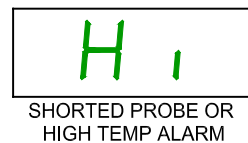
To reset, CLOSE the drain valve, turn the control OFF.

Some applications do not use the drain valve input.



### 3.3 Equipment Fault Displays

This control will detect faulty probe conditions. If temperature probe faults are detected, display will show one of two possible conditions. All other functions are disabled. To reset, turn control Off then On.



### 3.4 Fill Display

If this appliance is equipped with a liquid level option, the control will display [FiLL] when the water level gets to low. Heat is suspended until the tank is filled to a safe level.

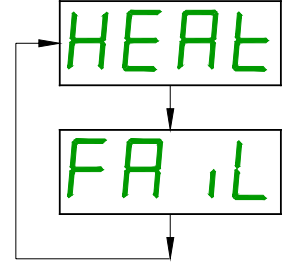


Some appliances don't have the liquid level option.

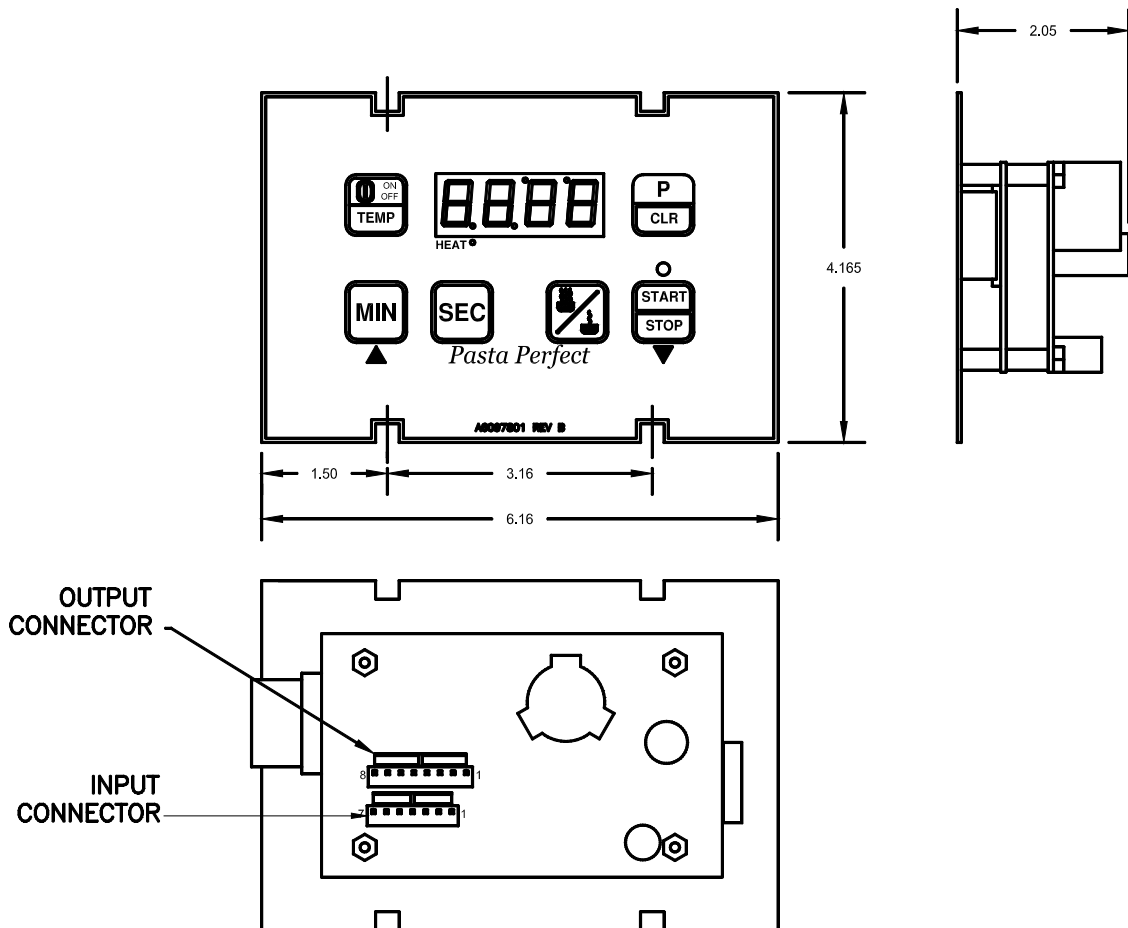


### 3.5 Heat Failure

This message indicates that the heating system failed to respond to the controls demand for heat. Typically, the high temperature limit switch has tripped and is need of resetting. In the case of gas fired appliances, this message will display if the pilot fails to light or is detected marginal by the ignition module.



### 4 Mechanical Dimensions:





**5 Electrical Connections:**

*Warning: Remove power from the appliance before disconnecting or connecting the cooking control. Permanent control damage may occur if this practice is not followed.*

60158301 INPUT CONNECTOR					
PIN	INPUTS	COLOR	TYPE		COMMENTS
1	ACH	BLUE/W	PWR	24VAC	24VAC +10% -15% ,7VA
2	ACN	WHITE		24VACN	24VAC COM & FRAME
3	PROBE+	BLK	PROBE	THERMISTOR PROBE	
4	PROBE-	BLK			
5	DVI	BRN	IN	24VAC	DRAIN VALVE SWITCH
6	HFB	ORG	IN	24VAC	HEAT FEED BACK
7	FILL DONE	ORG/W	IN	24VAC	FILL DONE (NOTE 1)

60158301 OUTPUT CONNECTOR					
PIN	OUTPUT	COLOR	TYPE		COMMENTS
1	24VDC RET	RED	DC COM	DC COM	-
2	HD	VIOL	OUT	24VDC	HEAT DEMAND
3	SO/xFER	YEL	OUT	24VDC	SIDE ON / XFER
4	RBL	W/BRN	OUT	24VDC	BASKET LIFT R
5	LBL	VIOL/W	OUT	24VDC	BASKET LIFT L
6	SPARE	NONE	SPARE	SPARE	NOT USED
7	RELAY IN	GRAY	OUT	N.O. CONTACTS	HD RELAY IN
8	RELAY OUT	GRAY			HD RELAY OUT



**6 Probe Resistance Chart:**

Probe Resistance in 5°F Increments.								
Probe Temp (°F)	Probe Temp (°C)	Resistance (Ohms)	Probe Temp (°F)	Probe Temp (°C)	Resistance (Ohms)	Probe Temp (°F)	Probe Temp (°C)	Resistance (Ohms)
10	-12.2	562734	175	79.4	11719	340	171.1	1058.23
15	-9.4	483875	180	82.2	10716	345	173.9	998.09
20	-6.7	417167	185	85.0	9812	350	176.7	942.00
25	-3.9	360589	190	87.8	8995	355	179.4	889.67
30	-1.1	312474	195	90.6	8255	360	182.2	840.78
35	1.7	271446	200	93.3	7586	365	185.0	795.10
40	4.4	236370	205	96.1	6979	370	187.8	752.38
45	7.2	206311	210	98.9	6427	375	190.6	712.41
50	10.0	180491	215	101.7	5926	380	193.3	674.95
55	12.8	158252	220	104.4	5470	385	196.1	639.87
60	15.6	139055	225	107.2	5055	390	198.9	606.96
65	18.3	122489	230	110.0	4675	395	201.7	576.09
70	21.1	108051	235	112.8	4329	400	204.4	547.09
75	23.9	95539	240	115.6	4013	405	207.2	519.86
80	26.7	84644	245	118.3	3723	410	210.0	494.24
85	29.4	75136	250	121.1	3458	415	212.8	470.16
90	32.2	66823	255	123.9	3214	420	215.6	447.49
95	35.0	59540	260	126.7	2991	425	218.3	426.13
100	37.8	53146	265	129.4	2785	430	221.1	406.02
105	40.6	47523	270	132.2	2597	435	223.9	387.04
110	43.3	42569	275	135.0	2422	440	226.7	369.14
115	46.1	38195	280	137.8	2262	445	229.4	352.24
120	48.9	34328	285	140.6	2113.9	450	232.2	336.29
125	51.7	30902	290	143.3	1977.3	455	235.0	321.21
130	54.4	27862	295	146.1	1851.0	460	237.8	306.94
135	57.2	25161	300	148.9	1734.3	465	240.6	293.46
140	60.0	22755	305	151.7	1626.1	470	243.3	280.69
145	62.8	20610	310	154.4	1525.9	475	246.1	268.61
150	65.6	18695	315	157.2	1433.0	480	248.9	257.15
155	68.3	16981	320	160.0	1346.7	485	251.7	246.30
160	71.1	15446	325	162.8	1266.6	490	254.4	236.00
165	73.9	14069	330	165.6	1192.1	495	257.2	226.24
170	76.7	12823	335	168.3	1122.8	500	260.0	216.96

Notes: Resistance, of either probe lead, to the frame of the appliance should read as "open" on the meter. Typically this is 1Meg ohms or more.

°C = 5/9 (°F-32)

°F = (9/5 \* °C) +32



In the event of problems with or questions about your order, please contact the Pitco Frialator factory at  
(800) 258-3708 US and Canada only  
(603) 225-6684 World Wide  
[www.pitco.com](http://www.pitco.com)

In the event of problems with or questions about your equipment, please contact the Pitco Frialator Authorized Service and Parts representative (ASAP) covering your area, or contact Pitco at the numbers listed to the left.

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