ENGLISH

Service Manual

I8 Water Cooker Computer

Covering (P/N PP11375)

PITCO P | | |

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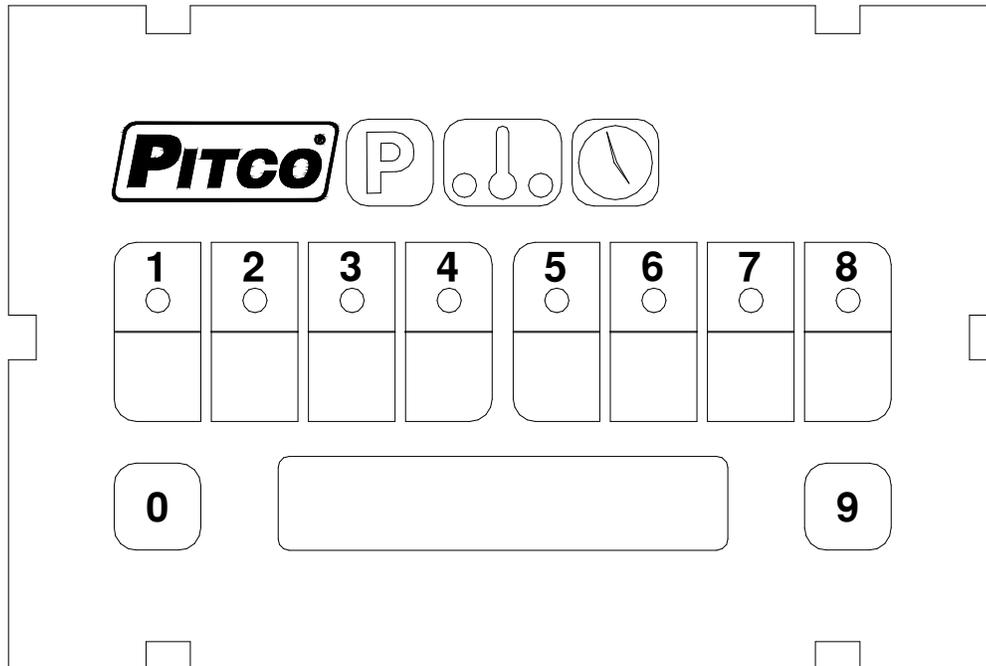
This manual details the operation and adjustment of the I8 Water Cooker computer developed for the Pitco water cooker and rethermalizer products. This microprocessor control offers the latest cooking technology, including temperature and time compensation that requires no user adjustments for consistently cooked product. Other features include, drain valve interlock, faulty probe detection, selectable melt cycles, beeper volume, and cook temperature. Each product key may be programmed with cook, shake and hold times to keep pace with changing menus over time. This manual reveals all adjustments that are possible by keyboard entry, including passwords.

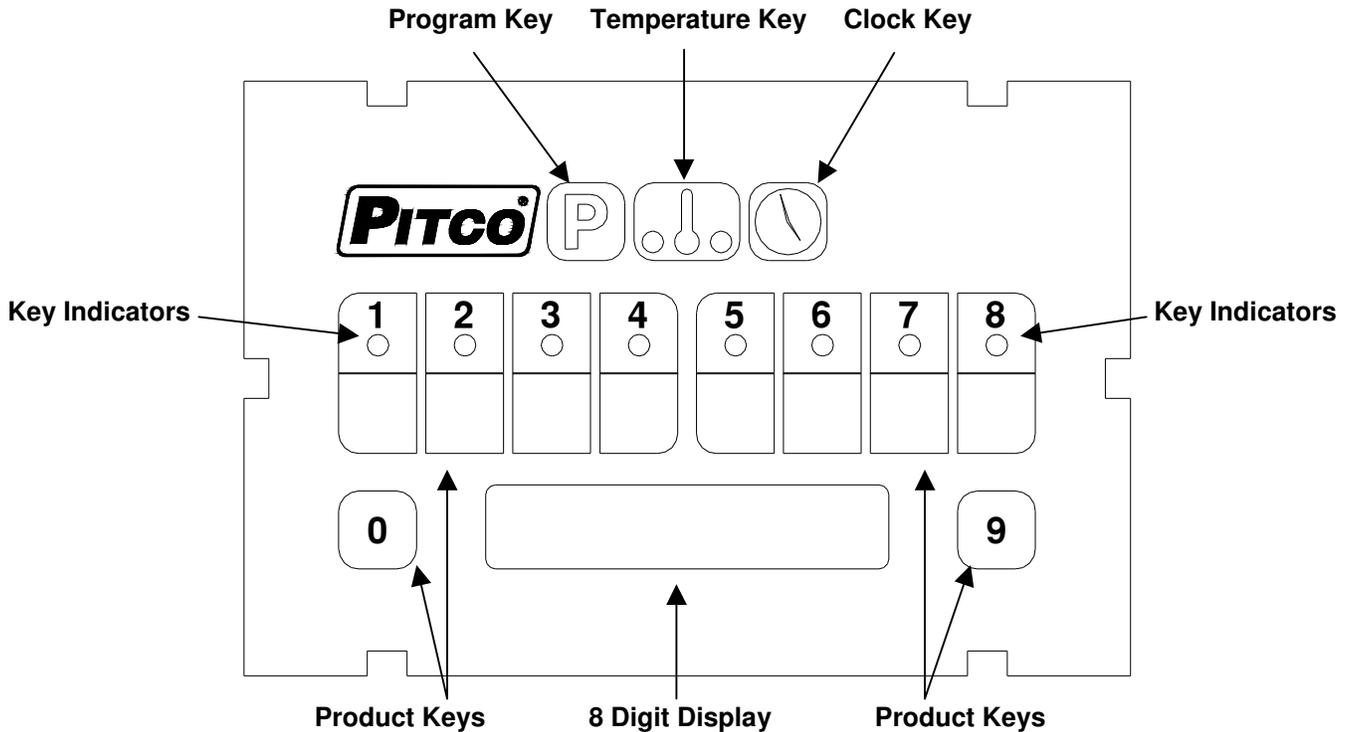**The target audience for this manual is the Service Technician.**

Table of Contents

1.0   Key Locations and Functions:

Program Key   Temperature Key   Clock Key

Key Indicators   **Key Indicators**

Product Keys   8 Digit Display   Product Keys

1.1   To turn the appliance ON:

If power is applied to the appliance(plugged in) and the control is off, the display will be blank. Turn on the control by pressing the power on/off switch located on the right side of the control to the ON position. The control will then briefly display the software version number, and then display either [**READY**], [**ACT xxx'F**] (where **xxx** is the current vat temperature) or [**FILLING**] if the appliance is being filled with water.

1.2   To turn the appliance OFF:

Press the power on/off switch to the OFF position. The control display will be blank.

1.3   To start a cook:

When the control display shows either [**READY**] or [**ACT xxx'F**], press the desired product key. For example, press product key 4 to start cook timer 4. The key indicator above the product key will begin to flash, and the cook timer should appear on the computer display. If multiple cook timers are running, the cook timer with the least amount of time remaining will be displayed.

1.4   To cancel a cook:

Press the product key to cancel a running cook timer.   If there are no other cook timers running, the computer will return to normal operation and display either [**READY**] or [**ACT xxx'F**] (where **xxx** is the current vat temperature).

1.5   To Check Actual and Set Temperatures:

Press the temperature key to check the actual vat temperature. The control will momentarily display [**ACT xxx'F**] (where **xxx** is the current vat temperature) and then return to normal operation.

To view the set temperature, press the thermometer key twice. The control will momentarily display [**SET xxx'F**] (where **xxx** is the set temperature), and then return to normal operation and display either [**READY**], or [**ACT xxx'F**].
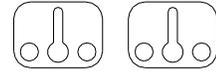
1.6 To view the current Cook, Shake and Hold timer settings:

To view the current Cook, Shake and Hold timer settings for a cook timer, press the clock key, followed by the desired product key for which you want to check the time settings. For example, press the clock key, then product key 4.

The control will display [**TM4 mm:ss**] (where **mm:ss** is **minutes:seconds**), then [**SH4 mm:ss**] and [**HD4 mm:ss**] as the current time settings for product key 4.

2.0 To enter Level 1 Programming(store manager):

Note: The factory default setting for this control does not require an operator password to be entered. However, the operator password requirement and value may be changed in section 3.2. Entry of a password when NOT required will not interfere with the programming process.

While there are no cook timers running, and the control display shows either [**READY**], [**ACT xxx'F**], or [**FILLING**], press the program key. If the control displays [**PASS**], enter the manager password(or the default manager password **6684**) using the product keys 0-9. The control display will show [**PROGRAM**].

All of the Level 1Menu programming options shown below must begin with the control displaying this prompt [**PROGRAM**].

2.1 To set the Cook Temperature:

With the control display showing [**PROGRAM**], press the thermometer key once. The control display will show [**SET xxx'F**] where **xxx** is the current setpoint temperature.
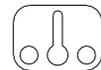
Enter the new set temperature using the product keys 0-9. Press the program key once to save this setting. The control display will show [**PROGRAM**]. Continue on to the next Level 1 Menu programming option below, or press the program key again to exit it out of the Level 1 Menu. The control display will show either [**READY**], [**ACT xxx'F**], or [**FILLING**] and the control will return to normal operation.

2.2 To change Cook, Shake and Hold Timer settings:

2.2.1 Cook Time

With the control display showing [**PROGRAM**], press the clock key. The display will show [**SELECT**] and all eight key indicators will light up. Press the desired product key for the cook time to change. For example, press product key 4. The control display will show [**4TM mm:ss**], indicating that Cook Timer 4 has a timer setting of **mm:ss** in **minutes:seconds**. Enter the new cook time using the product keys 0-9. Press the clock key to save/exit this setting and proceed to the next step(**2.2.2**) or press the program key three times to exit out of this programming option and to return to normal operation.

To deactivate the cook timer on a product key, enter in a cook time of zero for this key.

2.2.2 Shake Time

Shake Time is an alarm that sounds while a cook timer is running to prompt an operator to shake the product in the basket. The default value for shake time on a product key is zero, which disables this alarm. To enable the shake time alarm, a non-zero value must be entered for this setting. The shake time value must be less than the cook time.

With the display showing [**nSH mm:ss**] (where **n** is the desired product key, **SH** means Shake and **mm:ss** is the time value in **minutes:seconds**), enter the new shake time value using the product keys 0-9. NOTE: the time value entered will be the time remaining before the end of the cook.

Press the clock key to save/exit this setting and proceed to the next step(**2.2.3**) or press the program key three times to exit out of this programming option and return to normal operation.

2.2.3 Hold Time

After a product is cooked, it may stand in bins for a period of time. Hold Time provides a timer to control how long a product stands in a bin. After the hold timer expires, an alarm will sound to inform the operator to cook more product. The default value for hold time on a product key is zero, which disables this alarm/timer. To enable the hold timer/alarm, a non-zero value must be entered for this setting.

With the display showing [**nHDh.mm:ss**] (where **n** is the desired product key, **HD** means Hold and **h.mm:ss** is the time value in **hours.minutes:seconds**), enter the new hold time value using the product keys 0-9. Press the program key three times to save and exit out of this programming option.   The control display will show either [**READY**], [**ACT xxx'F**], or [**FILLING**] and the control will return to normal operation.

3.0   To enter Level 2 Options Programming(store manager):

Note: The factory default setting for this control does not require an operator password to be entered. However, the operator password requirement and value may be changed in section 3.2. Entry of a password when NOT required will not interfere with the programming process.

While there are no cook timers running, and the control display shows either [**READY**], [**ACT xxx'F**], or [**FILLING**], press the program key. If the control displays [**PASS**], enter the manager password(or the default manager password **6684**) using the product keys 0-9. The control display will show [**PROGRAM**]. To enter into the Level 2 Options Menu, press product key 0. The control display will show [**SELECT**].

The key indicators that light up will have options that can be adjusted. Any key indicators that do not light up do not have options that can be adjusted.

All of the Level 2 Options Menu programming options shown below must begin with the control displaying this prompt [**SELECT**].

3.1 Fahrenheit or Celcius Temperature Display:

This control will display temperatures in Fahrenheit(ºF).or Celsius(ºC) degrees. The default setting is degrees Fahrenheit(ºF).

With the control display showing [**SELECT**], press product key 1. The display will show [**DEGREE n**] where **n** is the current setting, either **F** or **C**. Press the 0 key to scroll between the two options. Press the program key to save the setting. The control display will show [**PROGRAM**]. Press product key 0 to select more options below(display shows [**SELECT**]) or press the program key to return to normal operations(display shows either [**READY**], [**ACT xxx'F**], or [**FILLING**]).

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3.2 Password Settings:

The factory default setting for this control is password disabled. The default factory password for Level 1 and Level 2 programming is 6684. <u>This default password will always work, regardless of the new password that can be entered using this option.</u>

With the control display showing [**SELECT**], press product key 2. The display will show [**SET PASS**]. Press product key 0 to scroll between the two options [**PASS REQ**], and [**NO PASS**]. Press the program key to save this setting. If the [**NO PASS**] option was selected, the control display will show [**PROGRAM**].]. Press product key 0 to select more options below(display shows [**SELECT**]) or press the program key to return to normal operations(display shows either [**READY**], [**ACT xxx'F**], or [**FILLING**]). If the [**PASS REQ**] option was selected, the display will show [**PASSxxxx**], where **xxxx** is the current password. Enter the new password using the product keys 0-9. Press the program key. The control display will show [**PROGRAM**]. Press product key 0 to select more options below(display shows [**SELECT**]) or press the program key to return to normal operation(display shows either [**READY**], [**ACT xxx'F**], or [**FILLING**]).

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3.3 Beeper Volume Setting:

The volume setting of the beeper(alarm) can be set to low(1), medium(2) and high(3). The default value for the beeper volume is 3.

With the control display showing [**SELECT**], press product key 3. The display will show [**VOLUME x**] where **x** is the current volume setting. Press product key 0 to scroll through the volume options. The control will beep using the volume setting currently shown on the display. Press the program key to save this setting. The control display will show [**PROGRAM**]. Press product key 0 to select more options below(display shows [**SELECT**]) or press the program key to return to normal operation(display shows either [**READY**], [**ACT xxx'F**], or [**FILLING**]).

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3.4 Language Selection:

This control can display text in English, Spanish, French, German and Dutch.

With the control display showing [**SELECT**], press product key 4. The display will show the current language setting of either [**ENGLISH**], [**ESPANOL**], [**FRANCAIS**], [**DEUTSCH**], or [**HOLLANDS**]. Press product key 0 to scroll through the language options. Press the program key to save this setting. The control display will show [**PROGRAM**]. Press product key 0 to select more options below(display shows [**SELECT**]) or press the program key to return to normal operation(display shows either [**READY**], [**ACT xxx'F**], or [**FILLING**]).

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3.5   Control or Timer Mode Setting:

This control can operate in one of two basic modes, Control or Timer mode. The default mode setting is Control mode, and is the setting for normal operation. In this mode, the cook timers are active and the heat control outputs are enabled to control the heating of the vat. In Timer mode, the cook timers are active, but the heat control outputs are disabled.

NOTE: Do not use the Timer mode setting on Solstice fryer models.

With the control display showing [**SELECT**], press product key 7. The display will show the current setting of either [**CONTROL**] or [**TIMER**]. Press product key 0 to scroll between the two options. Press the program key to save this setting. The control display will show [**PROGRAM**]. Press product key 0 to select more options below(display shows [**SELECT**]) or press the program key to return to normal operation(display shows either [**READY**], [**ACT xxx'F**], or [**FILLING**]).

4.0   To Enter Level 3 Service Programming(service technician):

Note: The factory default setting for this control does not require an operator password to be entered. However, the operator password requirement and value may be changed in section 3.2. Entry of a password when NOT required will not interfere with the programming process.

While there are no cook timers running, and the control display shows either [**READY**], [**ACT xxx'F**], or [**FILLING**], press the program key. If the control displays [**PASS**], enter the manager password(or the default manager password **6684**) using the product keys 0-9. The control display will show [**PROGRAM**]. To enter into the Level 3 Service Menu, key in the service password of **6685** using the product keys 0-9. The control display will show   [**SERVICE**].
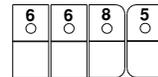
The key indicators that light up will have options that can be adjusted. Any key indicators that do not light up do not have options that can be adjusted.

All of the Level 3 Service Menu programming options shown below must begin with the control displaying this prompt [**SERVICE**].

4.1   Offset Temperature Setting:

This setting allows the displayed temperature value to be offset(degrees F) to reflect the true center vat temperature while reading the probe tip temperature. The default value is zero. A setting of zero for the temperature offset will make the displayed temperature equal to the probe temperature. The maximum offset value that can be entered is 20.

With the control display showing [**SERVICE**], press product key 1. The display will show [**OFF xx F**], where **xx** is the current offset value. Enter the new offset value using the product keys 0-9. Press the program key to save this setting. The control display will show either [**POSITIVE**] or [**NEGATIVE**], indicating that the offset value is positive or negative. Press product key 0 to scroll between these two options. Press the program key to save this setting. The display will now show [**SERVICE**]. Continue on to the remaining service menu options below, or press the program key twice to return to normal operation(display shows either [**READY**], [**ACT xxx'F**], or [**FILLING**]).

4.2 Cancel Delay Setting:

This setting controls the length of time(in seconds) necessary for a key press to cancel an active cook timer. A setting of zero disables this cancel delay setting and a cook timer cancels as soon as a product key is pressed. A cancel delay setting of greater than zero enables this cancel delay, and a product key must be pressed and held for the duration of time(in seconds) equal to the current cancel delay before the active cook timer will cancel. For example, if the cancel delay is set to 5, then a product key will have to be pressed and held for 5 seconds before the active cook timer will cancel. The default value is zero. The maximum value that can be entered is 9.

NOTE: The Cancel Type(section 4.4) must be set to 1 before this Cancel Delay feature will work. See section 4.4, Cancel Type Setting, for more information.

With the control display showing [**SERVICE**], press product key 2. The display will show [**CAN DLYx**], where **x** is the current cancel delay value. Enter the new cancel delay using product keys 0-9. Press the program key to save this setting. The display will now show [**SERVICE**]. Continue on to the remaining service menu options below, or press the program key twice to return to normal operation(display shows either [**READY**], [**ACT xxx'F**], or [**FILLING**]).

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4.3 Minimum On Cycle Time Setting:

This setting adjusts the minimum time duration(in seconds) that the heat control output will be on when heat is applied to the vat. The range of this setting is 1 – 30 seconds.

With the control displaying [**SERVICE**], press product key 3. The display will show [**MINON :xx**], where **xx** is the current minimum on cycle time(in seconds). Enter the new value using product keys 0-9. Press the program key to save this setting. The display will now show [**SERVICE**]. Continue on to the remaining service menu options below, or press the program key twice to return to normal operation (display shows either [**READY**], [**ACT xxx'F**], or [**FILLING**]).

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4.4 Cancel Type Setting:

The Cancel Type setting allows for two cook timer cancellation types. If set to 1, then the Cancel Delay setting(section 4.2) is used. If the Cancel Type is set to 0, then a product key must be pressed three times in succession in order to cancel a cook, and the Cancel Delay setting is ignored. The default Cancel Type value is 1.

With the control display showing [**SERVICE**], press product key 4. The control display will show [**CANTYP x**], where **x** is the current cancel type value, either **0** or **1**. Press product key 0 to scroll between the two cancel type values. Press the program key to save this setting. The display will now show [**SERVICE**]. Continue on to the remaining service menu options below, or press the program key twice to return to normal operation(display shows either [**READY**], [**ACT xxx'F**], or [**FILLING**]).

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4.5 Diagnostics Menu:

This menu option allows for basic diagnostic testing of the inputs and outputs of the control. By exercising outputs and examining inputs, a determination can be made as to whether the appliance problem is related to the control computer. In this menu, each product key is assigned to a specific input or output on the control.

All control outputs in the ON state should produce 24VDC(+/- 10%) on the appropriate pin on the controller connector. All controller inputs require 24VAC or 24VDC(+/- 10%) on the appropriate

connector pin. Controller inputs can be verified by the ON or OFF state of the key indicator above the appropriate product key.

With the control display showing [**SERVICE**], press product key 5 to enter into the diagnostics menu. The control display will show either [**D CLOSED**] or [**D OPEN**] depending on whether   the drain switch is open or closed. Press the appropriate product key listed below to test the input/output assigned to that key:

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4.5.1   Left Basket Lift(LBL) Output:

Press product key 1 to toggle this output ON or OFF. The control display will show [**L BASKET**].

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4.5.2   Right Basket Lift(RBL) Output:

Press product key 2 to toggle this output ON or OFF. The control display will show [**R BASKET**].

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4.5.3   Heat Demand(HD) Output:

Press and hold product key 3 to turn this output ON. Release the key to turn this output OFF. The control display will show [**HEAT DEM**].

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4.5.4   Side On(SO) or Transfer Output:

Press product key 4 to toggle this output ON or OFF. The control display will show [**TRANSFER**].

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4.5.5   Drain Switch(DVI) Input:

Press product key 5 to view the state of the drain switch input. The control display will show either [**D CLOSED**] or [**D OPEN**] depending on whether the drain switch is open or closed.

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4.5.6   Heat Feedback(HFB) Input:

Press product key 7 to view the state of the heat feedback input. The control display will show either [**FB ON**] or [**FB OFF**] depending on whether a heat feedback signal is present or not.

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4.5.7   Fill Done Input:

Press product key 8 to view the state of the fill done input. The control will display either [**NO FILL**] or [**FILL**] depending on whether a fill signal is present or not.

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Press the program key to exit it out of this menu option. The display will now show [**SERVICE**]. Continue on to the remaining service menu options below, or press the program key twice to return to normal operation(display shows either [**READY**], [**ACT xxx'F**], or [**FILLING**]).

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4.6   Recovery Test Value:

This control records the heat up time for the appliance. A poorly running appliance will have an increased recovery time. Select this menu option to view the last recorded recovery time for this appliance. The recovery time is the length of time(in seconds) the appliance needs to heat the vat from 230°F to 280°F. This menu option is for display only.

With the control display showing [**SERVICE**], press product key 7. The control display will show [**Rxxx-yyy**], where **xxx** is the last recorded recovery time for this appliance, and **yyy** is the factory default recovery time. Press the program key to exit it out of this menu option. The display will now show [**SERVICE**]. Continue on to the remaining service menu options below, or press the program key twice to return to normal operation(display shows either [**READY**],   [**ACT xxx'F**], or [**FILLING**]).

4.7   More Service Menu Options:

With the control display showing [**SERVICE**], press product key 8. The display will show [**MORE**] for the More Service Menu.

The key indicators that light up will have options that can be adjusted. Any key indicators that do not light up do not have options that can be adjusted.

All of the Level 3 More Service Menu programming options shown below must begin with the control displaying this prompt [**MORE**].

4.7.1   Low Ready Level Adjustment:

This setting allows the READY idle message to be displayed a number of degrees <u>below</u> the current set temperature. For example, if the current set temperature is 180°F, and the READY idle display message is to be displayed from 175°F to 180°F, then this setting should be given a value of 5. The maximum value for this setting is 9 degrees.

With the control display showing [**MORE**], press product key 1. The display will now show [**RDY LO x**], where **x** is the current Low Ready Level setting. Enter the new value using product keys 0-9. Press the program key to save this setting. The display will now show [**MORE**]. Continue on to the remaining more service menu options below, or press the program key three times to return to normal operation(display shows either [**READY**], [**ACT xxx'F**], or [**FILLING**]).

4.7.2   High Ready Level Adjustment:

This setting allows the READY idle message to be displayed a number of degrees <u>above</u> the current set temperature. For example, if the current set temperature is 180°F, and the READY idle display message is to be displayed from 180°F to 185°F, then this setting should be given a value of 5. The maximum value for this setting is 9 degrees.

With the control display showing [**MORE**], press product key 2. The display will now show [**RDY HI x**], where **x** is the current High Ready Level setting. Enter the new value using product keys 0-9. Press the program key to save this setting. The display will now show [**MORE**]. Continue on to the remaining more service menu options below, or press the program key three times to return to normal operation(display shows either [**READY**], [**ACT xxx'F**], or [**FILLING**]).

4.7.3   Low Dead Band Adjustment:

This setting adjusts the vat temperature limit below the set temperature, where the heat demand output will be ON to apply heat to the vat. At vat temperatures below this value, heat will be applied to the vat. For example if the set temperature is 180°F, and the Low Dead Band value is 3, then at vat temperatures below 177°F, heat will be applied to the vat. The value range of this setting is 1 – 9 degrees

With the control display showing [**MORE**], press product key 3. The display will now show [**DB LO x**], where **x** is the current Low Dead Band value. Enter the new value using product keys 1-9. Press the program key to save this setting. The display will now show [**MORE**]. Continue on to the remaining more service menu options below, or press the program key three times to return to normal operation(display shows either [**READY**], [**ACT xxx'F**], or [**FILLING**]).

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4.7.4   High Dead Band Adjustment:

This setting adjusts the vat temperature limit above the set temperature, where the heat demand output will be OFF. At vat temperatures equal to or greater than this value, the heat demand output will be OFF. For example if the set temperature is 180°F, and the High Dead Band value is 1, then at vat temperatures at or above 181°F, heat will not be applied to the vat. A setting of zero for this value will force the heat control output OFF when the vat temperature equals the set temperature. The value range of this setting is 0 – 9 degrees.

With the control display showing [**MORE**], press product key 4. The display will now show [**DB HI x**], where **x** is the current High Dead Band value. Enter the new value using product keys 0-9. Press the program key to save this setting. The display will now show [**MORE**]. Continue on to the remaining more service menu options below, or press the program key three times to return to normal operation(display shows either [**READY**], [**ACT xxx'F**], or [**FILLING**]).

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4.7.5   Control Temperature Average Setting:

This setting adjusts the number of times(per second) the vat temperature readings are averaged in the heat control process of the computer. The default value for this setting is 6. The value range of this setting is 1-9.

With the control display showing [**MORE**], press product key 5. The display will show [**AVER C x**], where **x** is the current control temperature average setting. Enter the new value using product keys 1-9. Press the program key to save this setting. The display will now show [**MORE**]. Continue on to the remaining more service menu options below, or press the program key three times to return to normal operation(display shows either [**READY**], [**ACT xxx'F**], or [**FILLING**]).

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4.7.6   Display Temperature Average Setting:

This option adjusts the number of times(per second) the vat temperature readings are averaged each second for displaying on the control display. The default value for this setting is 12. The value range for this setting is 7 – 32.

With the control display showing [**MORE**], press product key 6. The display will show [**AVER Dxx**], where **xx** is the current display temperature average setting. Enter the new value using product keys 0-9. Press the program key to save this setting. The display will now show [**MORE**]. Continue on to the remaining more

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service menu options below, or press the program key three times to return to normal operation(display shows either [**READY**], [**ACT xxx'F**], or [**FILLING**]).

4.7.7 Minimum Fill Time Setting:

This setting adjusts the minimum length of time the heat control process in the computer will wait before applying heat to the vat when the vat is being filled with water. Heat will be applied to the vat after the computer senses that the vat is full of water and the fill time counter expires. The sensing of the water level in the vat takes precedence over the fill time counter. In other words, the computer will ignore this timer if it does not sense that the vat is full(if the timer expires before the vat is full). The default setting for this timer is 20 minutes(20:00). The value range for this timer is from 1 – 30 minutes.

With the control display showing [**MORE**], press product key 7. The display will show [**FILLmm:ss**], where **mm:ss** is the current minimum fill time setting in **minutes:seconds**. Enter the new timer value using product keys 0-9. Press the program key to save this setting. The display will now show [**MORE**]. Continue on to the remaining more service menu option below, or press the program key three times to return to normal operation(display shows either [**READY**], [**ACT xxx'F**], or [**FILLING**]).

4.7.8 Pilot Flame Sense Timer Adjustment:

This menu option adjusts the timer that is used by the control to detect an absence of a pilot flame in the appliance during a cold start. During a cold start of the appliance, the control will expect to sense a pilot flame before this timer times out. If on a cold start, a pilot flame is not sensed by the control when this timer expires, the control outputs will be turned OFF(heat will be turned off), and an alarm will sound. The default value for this timer is 60 seconds. The value range of this setting is 10 – 60

With the control display showing [**MORE**], press product key 8. The display will show [**FLAME xx**], where **xx** is the current pilot flame sense timer value in seconds. Enter the new value using product keys 0-9. Press the program key to save this setting. The display will now show [**MORE**]. Continue on to the other more service menu options above, or press the program key three times to return to normal operation(display shows either [**READY**], [**ACT xxx'F**], or [**FILLING**]).

5.0 Control Alarm Displays:

This control continually monitors the basic overall functions of the appliance. <u>If any faults are detected, the control will turn all outputs OFF, suspend any cooking functions that may be in progress and sound an alarm.</u> One of several alarm messages detailed below will appear on the control display. If one if these alarms occur, turn off the control(see section 1.2). to reset the alarm.

5.1 Open Probe Alarm:

[**PROBE OP**]. Open temperature probe detection is standard on all Pitco controls. This alarm will occur if the temperature probe is detected to be open. All heating and cooking functions are suspended if this alarm occurs.

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PROBE OP
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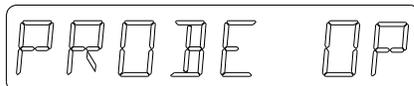
5.2   High Temperature Alarm:

[**HIGH TMP**]. This alarm will occur if the vat temperature exceeds the set temperature value by 35°F. If a high vat temperature alarm occurs, all heating and cooking functions are suspended.

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|                       |
|  HIGH   TMP           |
|_____|
```

5.3   Drain Valve Alarm:

[**DRAINING**] and [**TURN OFF**] (alternating). This alarm message will appear on the control display if the drain valve on the appliance is opened while the control is ON. All heating and cooking functions are suspended if this alarm occurs.
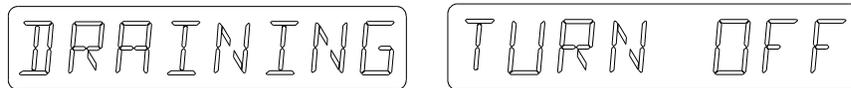
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 _____     _____
|               |   |               |
|  DRAINING     |   |  TURN  OFF    |
|_____|   |_____|
```

5.4   Heat Failure Alarm:

[**HEAT**] and [**FAILURE**] (alternating). This alarm will occur if the control does not sense a pilot flame or if the high limit switch has tripped and needs resetting. All heating and cooking functions are suspended if this alarm occurs.
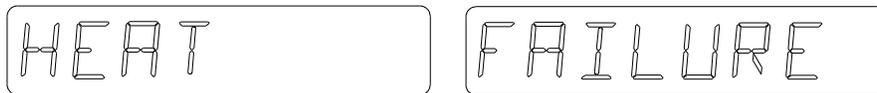
```
 _____     _____
|               |   |               |
|  HEAT         |   |  FAILURE      |
|_____|   |_____|
```

5.5   System Failure Alarm:

[**SYSTEM**]. This alarm will occur if the control detects a shorted temperature probe. All heating and cooking functions are suspended if this alarm occurs.
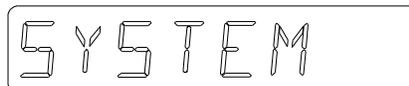
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|                       |
|  SYSTEM               |
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6.0 Electrical Connections(J1):

J1	Connection	Type	Nominal	Notes:
1	24VAC IN	PWR	24VAC	24VAC +20% / -15% 50/60Hz
2	24VAC COM	PWR	0VAC	AC RETURN
3	PROBE +	THERMISTOR PROBE	Resistance varies with vat temperature. 6.22K ohms at 212°F.	
4	PROBE -			
5	DVI	INPUT	24VAC/DC	Drain Valve Interlock
6	HFB	INPUT	24VAC/DC	Heat FeedBack
7	24VDC COM	PWR	0VDC	DC RETURN
8	HD	OUTPUT	24VDC	Heat Demand
9	SO(TRANSFER)	OUTPUT	24VDC	Side On(TRANSFER)
10	RBL	OUTPUT	24VDC	Right Basket Lift
11	LBL	OUTPUT	24VDC	Left Basket Lift
12	FILL DONE	INPUT	24VAC/DC	Fill Done signal

NOTE: **The Diagnostics Menu(sections 4.0 and 4.5) can be used to check the inputs and outputs on this connector.**
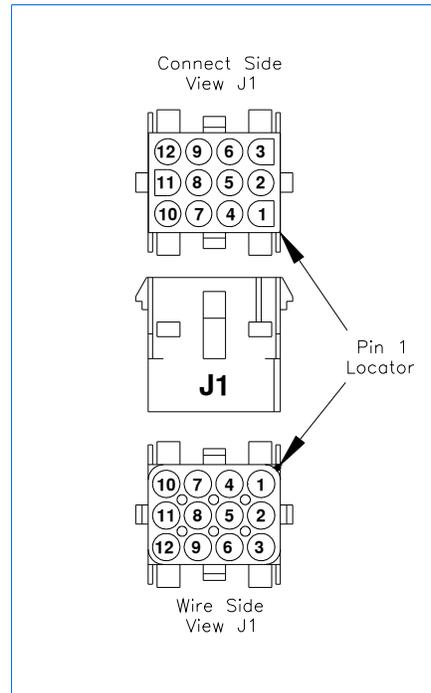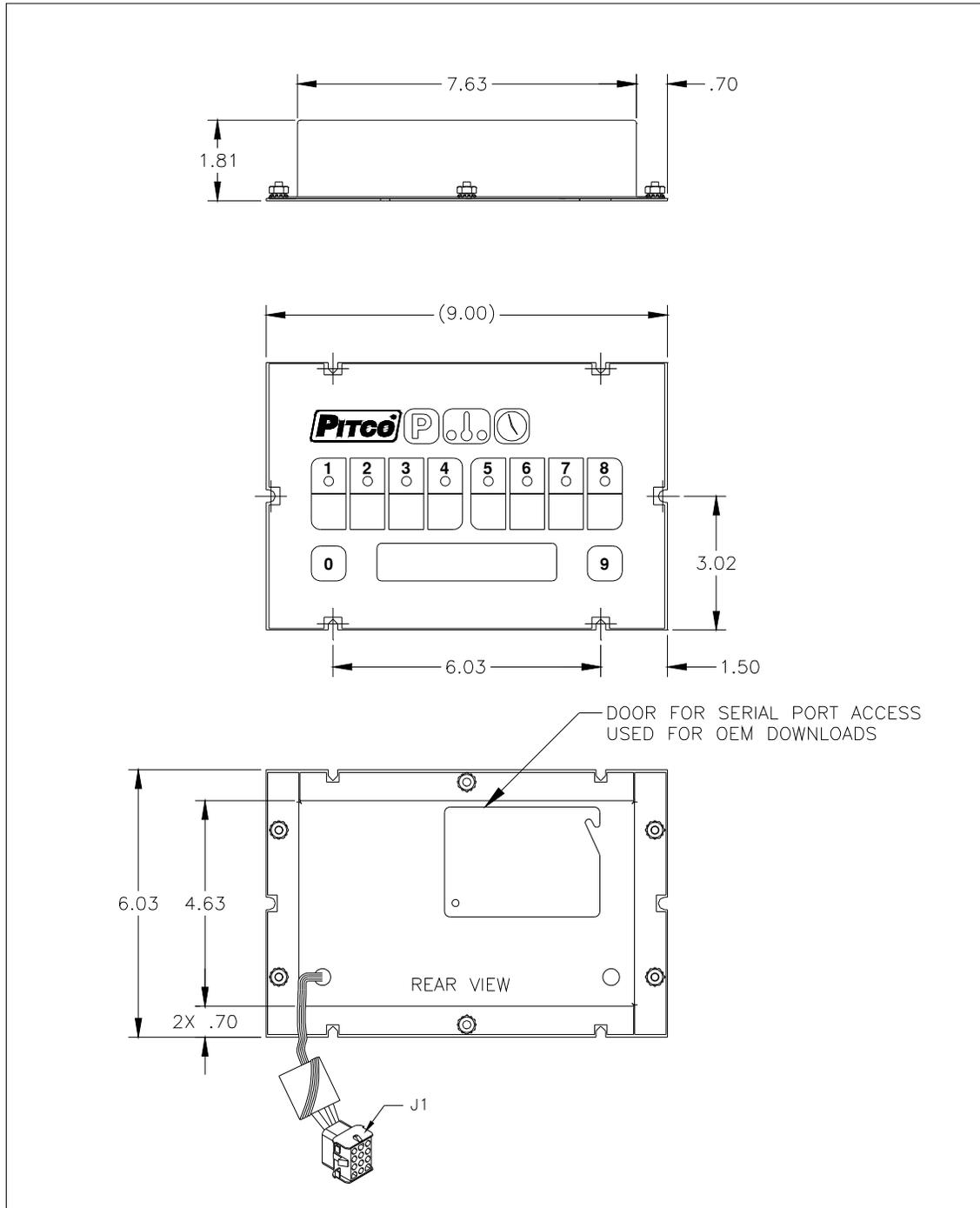
7.0 Probe Resistance Chart:

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

NOTE: The resistance of either probe lead measured to the frame of the appliance should read as an open on a meter(resistance >= 1Mohm).

8.0   Physical Dimensions:

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