



Customer Name:	
Model number:	
Serial number:	
Installation Date:	

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#### **Notice**

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# 1 Safety Instructions

- A minimum of 2 persons are necessary for the lifting and setting of the equipment.
- Each Pasta King<sup>TM</sup> unit has been inspected for proper operation before leaving the factory.
- The Pasta King<sup>TM</sup> must be used according to the ISI CRAN guidelines found in this
  user manual.
- Only pasta and ISI CRAN APPROVED foodstuffs are to be cooked in the pasta cooker. Cooking unauthorized foodstuffs may void the warranty.
- Do not use sharp objects to clean the equipment. Only ISI CRAN approved cleaning utensils may be used.
- Only authorized service technicians can perform the Pasta King<sup>TM</sup> installation, and service. Installation includes site testing. See the Installation and Warranty sections for more details.
- The machine both inside the cook chamber, the pasta delivery, the pasta discharge strainer and chamber, the machine exterior and surrounding area must be kept clean. The exterior can be wiped clean with an approved stainless steel cleaner, with care being taken to protect any plastic parts and decals
- The machine must undergo at least 2 sterilization cycles per day, one at start-up and the second during shutdown.
- Attention: Guards are in place to safeguard the operator and prevent the operator from placing fingers or hands into the strainer outlet or pasta entry areas while the equipment is in operation. Overriding the guards can result in the possibility of personal injury resulting in but not limited to burned or crushed fingers. Over-riding the guards is strictly forbidden.
- The machine is <u>NOT</u> user serviceable. Only authorized specialists of ISI CRAN and its licensed affiliates are allowed to remove the Pasta King<sup>TM</sup> panels and perform repairs and / or maintenance on the equipment. Unauthorized servicing of the equipment will void the warranty and service contract.
- The equipment must be serviced according to the service contract.
- At the end of the work day, the equipment must be shut down according to the ISI CRAN specified shutdown procedure.
- Failure to abide by these safety instructions will void machine warranty and service contract.

# 2 Description

Congratulations for your decision to purchase the Pasta King<sup>TM</sup> equipment! Your Pasta King<sup>TM</sup> enables you to rapidly serve your clients with fresh pasta cooked to perfection at any time.

The Pasta King<sup>TM</sup> pasta-cooker is a versatile machine designed to do one thing extremely well, to cook pasta fast. Each portion cooked in the Pasta King<sup>TM</sup> will be cooked consistently each and every serving. The bite can be adjusted from very soft to "el dente". Each serving of pasta is cooked in fresh water, not re-used.

Experience shows that the term "el dente" is a subjective distinction, different for each individual. Because people have different tastes as to what is considered "el dente" the Pasta King<sup>TM</sup> is designed to allow the "bite" of the pasta to be tailored to an individuals preference. This is adjusted by adjusting the cook time.

At delivery, the equipment is factory set for a cooking time of 115 seconds. The cook-time can be extended or reduced as needed, allowing an operator to "fine-tune" the pasta bite to his taste of being "el dente".

The weight of one portion or serving of pasta can be individually adjusted by the operator. A maximum of 130 grams (4 ounces) dry weight of pasta may be cooked at any one time.

Though other brands of pasta can be cooked in the Pasta King, the cook time of the Pasta King Express<sup>TM</sup> can only be guaranteed by using pasta specified by ISI CRAN.

The pasta delivered by ISI CRAN is competitively priced, and is guaranteed to be of a very high quality. Because the equipment is enhanced for the pasta supplied by ISI CRAN, the cook time is faster than other pasta of similar shape and size.

Other types of pasta or food products not approved by ISI CRAN and processed in the Pasta King<sup>TM</sup> may damage the equipment. Damage caused by such misuse will void the warranty and/or service contract.

#### 2a What is in the Box

- Pasta King Express TM Unit
- ➤ 4 Hi-strength adjustable stainless steel legs
- Lexan Display Shroud
- Pasta Funnel
- Pasta Strainer
- Get Started Guide
- Users Manual

# 2b Machine Specifications

Electrical: 240 Volts, 1 Phase, 30 Amps

Weight: 150 lbs

**Water:** Filtered water, 5 microns filtration, < 2 grains hardness

pH: 6 < X < 8

½" supply, minimum 30 psi, 5 GPM flow rate

**Drain:** Can be run to a sink or 1½" stand pipe

All electrical and plumbing must conform to local codes. Electrical service is to be GFCI protected. A resettable, double pole GFCI breaker is located on the rear panel of the PKE

# 2c Unpacking your New Pasta King Express™

A minimum of 2 persons are necessary for the lifting and setting the equipment upon an approved stand.

Due to the weight of the unit, OSHA approved back support is recommended. Use sound lifting practices such as keeping the back straight and lifting with the legs. If available, use straps or other lifting equipment to safely raise the machine. See appendix for suggested lifting techniques.

Wear safety gloves when picking up the machine. Even though there are no sharp edges, dull sheet metal, like paper, can cut skin when an edge contacts skin in a certain orientation.

The Pasta King Express TM is delivered in a custom corrugated shipper assembly specifically designed to keep the machine safe during transit. This shipper assembly is made up of a heavy corrugated cover, containing a minimum of 2 vertical corner supports for strength, and a thick base sheet, which provides additional cushioning, mounted onto a wood pallet. The customer is encouraged to retain the shipper assembly should the Past King Express TM ever need to be returned to the factory. Should the customer inadvertently dispose of the shipper assembly, a replacement can be purchased for an additional charge. As a courtesy to our customers, upon request, the installation technician can remove the original shipper assembly and return it to the factory for re-use. This would entitle the customer to a complimentary shipper should the need arise. The complimentary shipper would be delivered to the customer, without charge.

#### 3 Installation

# 3a Set-up

The connections for fresh water, waste water and electrical current are situated at the back of the unit.

The installation of dedicated water and electricity services should only be done by authorized specialists, conform to local codes and be completed before the equipment is delivered.

Only authorized service technicians can perform the Pasta King Express<sup>TM</sup> installation. Installation includes site testing and initial start-up. Please have this book handy for the installer. The technician will note the customer name, model number, serial number and installation date in the user manual.

The Pasta King Express TM should be set upon a counter-top or table that is specifically designed to support the weight of the equipment and remain stable. If an appropriate stand is not available, ISI CRAN offers 2 stands: a storage table with a lower shelf, and a storage stand with enclosed storage. Both are available in stainless steel with either leveling feet or industrial castors.

The Pasta King Express<sup>TM</sup> must be oriented so that the operators display and start button face the operator and the water, drain and electrical connections face the rear of the machine.

Fresh water, a waste drain, and the electrical supply should be in close proximity to the installation site of the Past King Express<sup>TM</sup>.

#### 3b Utilities

## Fresh water supply

The water consumption for one portion of pasta is about 1 quart. The same quantity of water will be used during each sterilization cycle. Hourly water consumption assuming 2-minutes per serving and continuous operation is approximately 9 gallons Water supply pressure should be at least 30 psi

To prevent mineral deposition upon the cooking surfaces the water should be less than 2 grains of hardness. This will keep the cooking chamber running at optimal performance. If the supply water is hard, a de-ionizing filter or water softening equipment should be used to demineralize the supply water. ISI CRAN can supply the necessary water treatment equipment or the customer can contract from any number of purveyors of water treatment. Water filtration equipment must be installed if the water is above 2 grains of hardness. Failure to supply water of the necessary purity will void the warranty and the service contract.

#### Waste water drain

The waste discharge from the Pasta King<sup>TM</sup> can be routed to a sink or a stand pipe. The water temperature discharged from the drain is over 150°F and can cause severe burns. Care must be taken to prevent the accidental exposure of the drain water to an operator or other employee. The preferred connection would be to route the waste water discharge into a dedicated stand pipe or to a connection after the sink.

## Electrical supply

Specifications:

Voltage: 240 Volt, 1 Phase, 60 Hertz

Amperage: 30 Amps

The machine must have a dedicated circuit, protected by a 30 amp breaker.

A 240 volt, 30 amp ground fault circuit interrupter is mounted on the rear panel. It also doubles as the machines primary electrical service shutoff.

The equipment must be hardwired to the customer's electrical service and not connected to the service shutoff using a power cord. Seal-tite is the preferred method of connecting the machine to the customer's service.

It is further recommended that a customer supplied service disconnect switch be installed with-in Line Of Sight of the equipment. Check local electrical and safety codes for further installation requirements.

The machine mounted double-pole GFCI is not intended to replace a LINE of SIGHT service disconnect.

# 4 Getting to Know your Pasta King™

# 4a Descriptions of the Pasta King Express™ functions

## **Clean-Out Procedure**

The Clean-out procedure enables the usage of hand cleaning tools within the cooking chamber. By activating the Clean-out function, both gate valves are energized to simultaneously open both ends of the cook chamber, providing complete access. With the strainer removed, ISI CRAN approved brushes can be used to clean pasta residue, such as starch from the chamber wall. The Cleanout function can be selected by the machine operator during the Shutdown sequence or can be manually selected anytime during the work period between cooking cycles when deemed necessary. However, the Clean-out function will not be enabled unless the cartridge heaters are de-energized AND the boiler temperature is at or below 200°F. This is to prevent the wash water that will be used with cleaning tools from flashing to steam and also to protect the tools from potential damage due to contacting the cooking chamber wall when subject to extreme surface temperature, and possibly damaging the cooking chamber surface. The Clean-out function is to be run daily at the close of each work day. prior to deactivating the equipment. Failure to run the clean-out procedure at the end of each workday can void the warranty.

#### **Cook Time**

The longer the pasta cooks, the softer it becomes. The cooking time can be adjusted so that the pasta texture can be adjusted to a consistent, pre-selected finish ranging from mush to "el dente".

#### Counter

The counter keeps track of the machine statistics, such as the number of portions cooked, the number of on/off cycles, the number of clean-out cycles, and the number of times the machine was subject to a sterilization cycle. The counts can only be adjusted or reset by ISI CRAN certified technicians.

#### **Danger Zones**

The Pasta King Express<sup>TM</sup> uses extreme heat and pressure to quick cook pasta. The machine is well insulated and shrouded to keep operators safe. However, there are 2 zones that are not capable of being isolated from the operator: 1) the pasta delivery opening at the top of the machine and the strainer section where cooked pasta is collected at the completion of the cooking cycle. To safeguard the operator, the machine will not operate if the funnel and strainer are not properly installed.

#### **Heating Cycle**

The time it takes to preheat the boiler and cooking container.

#### Languages

The equipment software allows for several languages to be displayed on the user interface. Other languages are available upon request.

#### Pasta Delivery Funnel

The funnel sits in a recess on top of the machine and guides pasta into the cook chamber. A solid state switch is activated when the funnel is returned to its cradle. If the funnel is removed from its cradle before the cooking cycle starts, the upper gate valves will not open and the cooking cycle will not begin. The funnel must be removed and thoroughly washed at the start of the workday before operating the PKE.

#### Safety Components

These are components that serve a dual purpose. The strainer and the pasta delivery funnel have dual functions. The first is as the component description indicates. The second is to prevent fingers from accidentally entering a danger zone on the machine.

#### **Safety Sensors and Strainer Interlock**

The machine is equipped with safety sensors and a strainer interlock. Sensors detect whether the Safety Components are properly assembled onto the machine. The interlock captures the strainer and locks it into position during the cooking cycle.

# Service Button

In case the Pasta King Express<sup>TM</sup> is in need of service, the service technician can press the service soft button on the display and a password screen will appear. This enables the technician to force outputs and troubleshoot the machine. If the operator inadvertently presses the service button, a back button on the password page will return the operator to the preceding screen.

#### Shutdown Sequence

When the machine is being closed down at the end of the workday, the operator needs to activate Shutdown Procedure soft button. This will cycle the machine through a sterilization cycle, a cool down cycle and a clean-out cycle. After sterilization, the heating elements are de-energized and a series of ten 1-minute cold water purges are used to remove residual heat from the boiler and cook chamber. These purges will drop the residual heat of the boiler and cook chamber temperature under 200°F. When the temperature reaches 200°F, the Clean-Out sequence will automatically activate, opening the inlet and discharge of the cook chamber. The unit is to be powered down at this time by depressing the red mushroom-headed power button. The clean-out sequence enables the use of an ISI CRAN approved cook chamber scrubbing brush to dislodge any adhering pasta residue. Once cleaning is completed, shut-off the water supply to the PKE, if desired. The cook chamber will remain open to air dry, reducing the chance of bacterial growth.

## Sterilization Cycle

In order to eliminate any possibility of bacterial contamination, the machine has a sterilization cycle that when activated will disinfect the food contact surfaces of the cooking chamber. Sterilization can also be used to soften and remove any adhering pasta residue from the cooking surfaces. Sterilization is fully automatic during PKE start-up, during the Shutdown Procedure, and after recovering from a malfunction. Sterilization can also be manually initiated during the normal operation. The sterilization process will take approximately 5 minutes.

#### Strainer

The strainer has a built-in guard to isolate the pasta discharge path from the operator. At the end of the cooking cycle, the strainer captures the cooked pasta as it exits the cook chamber, separating the rinse water from the pasta. The strainer must be emptied and returned to its cradle in the Pasta King Express<sup>TM</sup> before another cooking cycle can begin. Once the strainer has been properly reinserted into its cradle, a retaining bolt will engage the strainer preventing its removal until the subsequent cooking cycle has completed. At the beginning of each work day, the strainer must be removed and inspected prior to activating the machine. The strainer must be removed and washed at the end of each workday.

#### Tempering / Quik-tempering

Before the end of the cooking process, after the cooking water has vacated the cook chamber, rinse water will be introduced into the cook chamber. This is to lower the pasta temperature, thereby halting the cooking process to enable a consistent cook and hence "finish" to the pasta. This also removes residual starch from the pasta, reducing clumping, and lowers the pasta temperature to a level safe for consumption.

#### **User Interface / Display**

The LCD touch-screen display on the front of the machine enabling the user to input their selections and operate the Pasta King Express<sup>TM</sup> as well as observe the machine status during each phase of its operation.

4b Operator Displays and Programming

# 5 Start-up

# 5a Normal Start-up Procedure

- 1. Inspect the Pasta King Express<sup>TM</sup> prior to use
  - a. Visually verify the machine is safe and ready for use
  - b. Clean machine exterior, strainer, and funnel. Inspect strainer. Replace if damaged
  - c. Make certain circuit breaker is not locked out
  - d. Turn on water.
  - e. If above conditions are met and circuit breaker is on, turn on PKE
- 2. To Activate the PKE.
  - a. Rotate the Red mushroom-headed Power button to the right under the Display. This enables the button head to pop up, activating the switch, and energizing the PKE
    - i. Display indication: Self Test
    - ii. After ~2 seconds, display should indicate: Self Test Passed
    - iii. After ~2 seconds, display indicates: Pasta King Express
  - b. Soft ON button should be visible on the display.
  - c. Press the ON soft-button.
    - i. Note: Funnel MUST be properly installed before heaters will energize.
    - ii. Display will change to indicate the <u>Temperature Screen</u> and the words <u>Warming Up</u> will begin to flash.
    - iii. Clean soft-button is now visible on the display.
- 3. When Heating Cycle completes
  - a. Display will change to indicate: Sterilization Cycle
  - b. Sterilization Cycle will automatically initiate when unit reaches operating temperature.
- 4. When Sterilization Cycle complete
  - a. Display will change to display the Cooking Screen
  - b. Load pasta into funnel
    - i. Note: Funnel and strainer MUST be properly installed before unit will operate.
    - ii. If either the funnel or strainer is missing at this point the display will indicate System Not Ready
      - 1. If the funnel is missing or improperly installed, the phrase <u>Insert Funnel</u> will also be displayed
      - 2. If the strainer is missing or improperly installed, the phrase <u>Insert Strainer</u> will also be displayed.
- 5. Select and Press Pasta type soft-button on the <u>Cook Screen</u> to initiate the cooking cycle
  - a. Cooking temperature is fixed at the factory
  - b. Cook time is pre-programmed by customer
    - Pasta type soft-button cook time can be adjusted by the operator to their taste for each type of pasta selected.

- c. Cooking process begins
  - i. Pasta drops into cooking chamber
  - ii. Depending on pasta, cooking time is approximately 2 minutes.
- 6. At the end of the cook cycle, Panel will display a flashing Rinsing
  - a. Pasta will be rinsed and tempered.
- 7. At the conclusion of the rinse cycle, Display will momentarily (~5 seconds) display the <u>Temperature Screen</u>, and then return to the <u>Cooking Screen</u>
  - i. Cooked pasta will drop into the strainer
  - ii. Strainer locking pin will then release the strainer enabling operator access to the pasta
- 8. Once strainer is replaced back into its cradle, Pasta cycle is ready to repeat at step 4a.

# 5b Start-up Procedure after an Emergency Stop

If a Malfunction occurs, Press Power button, which also doubles as an Emergency-Stop, to shutdown the equipment.

- 1) Activate the PKE following steps 2 3 of the normal Start-up Procedure. Note: If after step 2a, the PKE will not start, refer to the Troubleshooting Guide in this manual.
- 2) Do not load pasta into the funnel. Instead, remove and empty the strainer.
- 3) Re-install the strainer, and run a second Sterilization cycle.
- 4) When 2<sup>nd</sup> Sterilization Cycle completes, remove strainer. If pasta is still found in the strainer, repeat steps 3 and 4 until the strainer is clean, devoid of pasta or pasta residue at the completion of the sterilization cycle.
- 5) Place clean strainer back into its cradle, load pasta into funnel, and select the pasta type on the Cook Screen
- 1) Once pasta cook cycle completes, the PKE is again ready to continue operation.

If the PKE still fails to start or continues to Malfunctions at any time during the start process, press the E-stop and go to the Troubleshooting Guide.

# 6 Shutting down the equipment

We suggest removing the pasta from the funnel and storing in a dark, sealed space to protect against dirt and humidity.

The Shutdown Procedure must be performed at the end of the workday. A sterilization cycle and a Manual Cleaning Cycle are part of the Shutdown Procedure and are initiated automatically. Failure to perform the Shutdown Procedure at the end of the workday can void the warranty.

When the Shutdown Procedure has completed, the Past King Express<sup>TM</sup> can be turned off.

If capable, the water supply can be shut-off.

#### Remark:

The importance of the Shutdown Procedure can not be over stressed. Problems can occur during the subsequent start-up, as well as the possibility of bacterial growth, if these procedures are not followed. Mechanical parts inside the equipment may be damaged by trying to startup the machinery if residual food is not removed.

# 6a Shutdown Procedure

- 1) Remove any pasta from the funnel
- 2) Press the shutdown soft button. The automatic shutdown cycle will begin within 5 seconds.
  - (a) Display indication: Sterilization
- 3) PKE will initiate a cooking chamber sterilization cycle
  - (a) The lower slide valves will close and the upper slide valve will remain closed.
  - (b) The sterilization cycle will begin.
    - (i) The Sterilization Progress will be displayed.
- 4) At the end of the sterilization cycle, the display will change to a flashing Rinsing
  - (i) The Cook chamber will be purged, and rinsed
- 5) After the Rinse cycle completes the heating elements will be de-energized and the boiler assembly will be quick cooled.
  - (a) The PKE will begin a series of ten quick 1-minute cold water purges in successive order.
- Cleaning-Out the cook chamber
  - (a) When boiler temperature falls to 200°F, the Clean-Out screen will be displayed. Display indication: Ready for Manual Cleaning
  - (b) The cook chamber slide valves will open enabling full accessibility from both top and bottom.

- (c) Remove both the strainer and funnel. Set aside to clean.
- (d) Press the Red mushroom-headed Power button to deactivate the PKE unit.
- (e) Using an ISI CRAN approved brush, clean the cooking chamber walls of any pasta residue. Due to the High heat of the cook chamber, using a non-approved brush will void the machine warranty
- (f) After scrubbing the cook chamber, dip the scrub brush in cool water and run through the chamber.
- (g) Repeat step (f)
- (h) Clean the drain pan and wipe dry.
- (i) Wipe down the outside of the machine.
- (j) If applicable, shut-off the water supply to the PKE

# 7 How to care for your New Pasta King Express™

# 7a Cleaning the equipment

Clean the exterior of possible pasta residue and other contaminants.

To clean the housing and the panels use a soft cloth and warm water with Pasta King<sup>TM</sup> Gentle Disinfecting Detergent.

To reduce fingerprint spotting on the stainless housing use <u>Pasta King</u><sup>TM</sup> <u>Stainless Steel Cleaner and Polish.</u>

Clean the strainer and funnel with warm water, and dry with a soft cloth. Both parts are dishwasher safe and can be cleaned safely using commercial dishwashers.

After cleaning, It is necessary to thoroughly dry the funnel and pasta inlet, which come in contact with the dry pasta.

During any equipment cleaning operation, the lower slide valve outlet must always be thoroughly cleaned of all residue.

The drain pan must be thoroughly cleaned of all residue.

# 8 Malfunctions

# 8a Troubleshooting Chart

- I. Unit will not run
  - A. Make certain circuit breaker is energized
    - 1. Make certain power button is in ON position
    - 2. Check to see that the funnel is located in its proper position
    - 3. Verify strainer is seated correctly within its cradle
- II. System Not Ready
  - A. Insert Funnel
    - 1. Make certain funnel is seated properly in cradle
    - 2. Cycle Power
    - 3. If machine will still not operate, Call Service
  - B. Insert Strainer
    - 1. Make certain strainer is seated properly in cradle
    - 2. Cycle Power
    - 3. If machine will still not operate, Call Service

## 8b When to call for Service

Before leaving the factory, the equipment has been checked for proper functioning.

During installation, if a malfunction occurs upon startup, the installation technician will be able to resolve the problem.

If a malfunction occurs during normal use, check the display. Write down the message on the display. Check the troubleshooting guide in the user manual

If the equipment will not start and if there is no display, then

Check whether the electricity is turned on,

If there is power and the machine still will not start:

Check whether the freshwater supply valve is open.

If the above conditions had been met and the machine will not start:

Turn off the equipment. Wait 10 seconds, then restart the unit.

Normally the equipment should now reset and operational.

If operational, the unit will purge any pasta and run a sterilization cycle automatically.

If the same failure reoccurs, repeat the above procedure. If the malfunction persists, call technical service.

We will do our best to help you.

# 9 Optional Equipment, Pasta and Supplies

Water Filtration

Multi-unit Counter-top Base

Storage Base with Stand

Shipper

Pasta

Condiments

# 10 Warranty and Service Contract

10a Warranty

# 10b Service Contract

# 11 Appendix

11a Lifting the PKE Diagrams