



# 3243 North California Avenue, Chicago, IL 60618

# GIANT 60 oz. GAS MACHINE OPERATION MANUAL

# FOR YOUR SAFETY

Do not store or use gasoline or other flammable vapors or liquids in the vicinity of this or any other appliance.

WARNING: Improper installation, adjustment, alteration, service or maintenance can cause property damage, injury or death. Read the installation, operating and maintenance instructions thoroughly before installing or servicing this equipment.

Post this notice in a prominent location.

WARNING: If you smell gas, STOP. Do not try to light any appliance or touch any electric switch. Do not use any phone in your building but immediately contact your gas supplier. Follow the gas supplier's instructions.

- \*Includes optional digital control instructions.
- \*Includes optional Salt/Sugar instructions



**READ** and **UNDERSTAND** these operating and safety instructions before operating this popcorn machine!

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# I. SAFETY ALERT SYMBOL

The symbol shown is used to call your attention to instructions concerning your personal safety and the safety of others. Watch for this symbol. It points out important safety precautions. It means **ATTENTION! Become Alert! Your personal safety is involved!** Read the message that follows and be alert to the risk of personal injury or death.



# II. SAFETY FIRST



The information in this manual is essential for the safe installation and operation of your Cretors popcorn machine. The manual must be read and understood before installing, and operating the equipment, or equivalent training must be provided.



"The employer shall instruct each employee in the recognition and avoidance of unsafe conditions, as well as, the regulations applicable to his work environment and to control or eliminate any hazards or other exposure to illness or injury". Ref.: 29 CFR 1926.20 (b)(4)(a)(2)



It is understood that safety rules within individual companies vary. If a conflict exists between the safety procedures contained in this manual and the rules of a using company, the more stringent rule should take precedence.

# III. INTRODUCTION

This manual is filled with time-saving and money-saving information regarding your Cretors popcorn machine. There is nothing more important than the safety aids and warnings that are throughout this document. The Safety Alert Symbol is used to identify topics of primary safety concern, wherever, they appear. Furthermore, a separate section has been included which deals exclusively with service and accident prevention.

If, after reviewing this manual, anything is unclear or technical problems are encountered, contact the distributor from whom you purchased your machine for assistance. If there are any additional questions, feel free to contact our Customer Service Department at the address and/or phone number listed on the last page of this manual. Always have the model and serial number of your machine available to assist in obtaining the correct information.

# IV. PURPOSE OF MANUAL

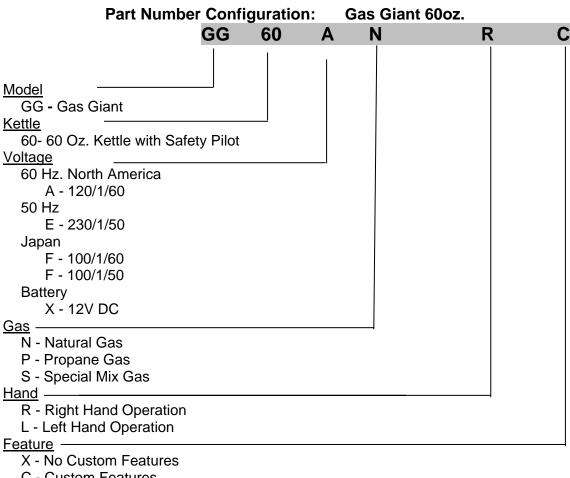
This instruction manual is intended to familiarize owners with the operation and safety procedures associated with your Cretors popcorn machine.

It is important that this manual be kept available to operating personnel.



A person who has not read and understood all operating and safety instructions is not qualified to operate the machine.

# V. PRODUCT IDENTIFICATION



C - Custom Features

D – Digital Control (available on 60oz only)

P - Equipped For Pump

T – Thermostat (available on 32oz only)

V - Vertical (Front Operation)

#### VI. PRINCIPLES OF POPCORN MACHINE OPERATION

# Theory and Observations of Popcorn Machine Operation

- A. The efficient production of popcorn requires the presence of popcorn kernels, heat, and oil. The purpose of the oil is to distribute the heat throughout kernels evenly and quickly. If the heat is not distributed evenly and quickly, the kernels may burn instead of pop.
- B. In order to pop corn in oil, the kettle, oil and parts near the flame are necessarily and unavoidably heated to temperatures high enough to pop popcorn.



Contact with these surfaces will burn and scald you. Do not touch the kettle, oil or parts in direct vicinity of the flame.

C. The kettle is provided with an agitator to assist in the quick and even distribution of heat throughout the kernels.



The oil is heated to high temperatures in a kettle to reach a proper popping temperature. An operator is required in the vicinity of the kettle only when handling corn or dumping popped corn from the kettle. Neither of these operations requires direct contact with the kettle. Direct contact with the hot oil, or kettle could result in serious burns or scalds. Keep away from the kettle whenever possible. Use the handle when dumping the kettle, and use the provided cups to measure corn, oil and salt.

- D. As the popcorn pops, it will push the lid open and discharge into the cabinet. When the corn finishes popping, the corn remaining in the kettle can be removed by holding the kettle handle in your right hand and rotating upwards in a counter-clockwise direction to dump the kettle. Return kettle to level position when finished.
- E. If the machine is equipped with an oil pump, and the pump switch is turned on, pressing the dispense button will begin the pumping cycle.

# VII. CONTROL SWITCHES (Not all machines contain all of these switches.)

AGITATOR -Turns the stirrer blade motor On/Off. PUMP -Provides power to the oil pump.

DISPENSE -Initiates the pump cycle.
DELIVERY -Initiates the pump cycle.

SALT/SUGAR -Sets the pump and kettle temperature to proper

settings.

DIGITAL CONTROLLER -Displays and controls kettle temperature

DUMP TIMER -Sets the time delay between when the heat shuts off and

the dump beacon light turns on.

## VIII. INSTALLATION INSTRUCTIONS

This manual must be retained for future reference.



The regulator mounted on the popper from Cretors is rated up to ½ PSI max input. The input pressure to the machine regulator MUST be below ½ PSI or the popper regulator will be damaged and the warrantee is voided.

- A. The wiring diagram for this unit can be found inside the pedestal of the unit.
- B. There should be 14" of clearance from the sides and rear of the unit.
- C. The installation of this unit must conform with local codes, or in the absence of local codes, with the National Fuel Gas Code, ANSI Z223.1/NFPA54, or the Natural Gas and Propane Installation Code, CSA B149.1, as applicable.
- D. This appliance, when installed, must be electrically grounded in accordance with local codes, or in the absence of local codes, with the National Electrical Code, ANSI/NFPA 70, or Canadian Electrical Code, CSA C22.2, as applicable.
- E. Provide adequate clearances for air openings into the combustion chamber, as well as clearances from combustible and noncombustible constructions. Assure there are adequate clearances for proper operation and servicing.
- F. The GG60 is rated at 50,000 Btu @ 4"wc of natural gas or 52,000 Btu @ 11"wc of propane gas.
- G. This appliance is equipped for either natural (propane) (LP) gas, see serial plate.
  - a. This appliance is equipped with orifices sized for operation with either natural (propane) (LP) gas, as specified on the serial plate.
  - b. For conversion to LP (propane) (natural) gas, see instruction plate on the appliance or contact C. Cretors & Co.
  - c. Orifices necessary for LP (propane) (natural) conversion can be purchased from C. Cretors & Co.

# H. Pump Installation & Timer Adjustment for Integrated pump Machines

When the Giant is purchased with the "Equipped for pump option", the hoses and connections are supplied to hook up to an external pump. When the Giant is equipped with the integrated pump option, see below for additional information.

- 1. For the Salt/Sugar and integrated pump machine the pump timers are located in the integrated pump box. One timer is marked "Salt", the other "Sugar". They are factory set but should be adjusted before first use for proper oil amount based on customer's oil type and set up.
- 2. To adjust the pump time, use the following procedure:
  - Remove the snap out plug on top of the switch box, which is on the top of the pump, to expose the timer.
  - Check to make sure the timer has good contact by pushing down lightly on timer, making certain not to push any of the switches.
  - Switches 1 through 10 are each assigned a certain amount of seconds of delay time. Each successive switch is double the amount of delay time for the switch before it. The amounts of delay time are written at the top, along the "OPEN"/"OFF" line (i.e. 1,2,4,8, etc to 512).
  - The switch must be in the UP position along the "OPEN"/"OFF" line for the delay time to apply. An example of this for three seconds would have the switch corresponding to the 1 on the "OPEN"/"OFF" line up along with the switch corresponding to the 2 on the "OPEN"/"OFF" line.

To turn the dip switches ON the dip switch needs to be pressed down to the number side opposite of the open side.



Example: If you turn #2 and #6 on, the pump time will be 34 seconds.

- 3. Install snap out plug (which was removed in first step).
- 4. To check amount, disconnect the hose from the kettle and press the oil dispense button (in each mode if equipped) with the flame off to verify desire oil amount. Adjust amount of time the pump runs to increase or decrease the dispensed oil amount.



Keep this appliance area free and clear from combustibles. Do not obstruct the flow of combustion and ventilation air, including ventilation of cylinder enclosures, if applicable.

# IX. OPERATING INSTRUCTIONS



Do not attempt to operate your Cretors popcorn machine until you have read and inderstood this manual. Failure to do so may result in serious injury or death.



Do not attempt to operate your Cretors popcorn machine unless the installation instructions have been strictly adhered to. Failure to do so may result in serious injury or death.



Operate your popcorn machine only if it is in good sanitary condition (See **SANITATION INSTRUCTIONS**). Failure to do so may result in illness to your customers.



Warning: This appliance is equipped with a three prong (grounding) plug for your protection against shock hazard and should be plugged directly into a properly grounded three-prong receptacle. Do not cut or remove the grounding prong from this plug.



Always turn the flame off when not popping corn. Failure to do so will cause oil to stain the kettle, possibly resulting in an unsanitary condition. It may also cause a "flash" fire if oil is added to a kettle left unattended with the heat on, resulting in serious burns or death.

Before the popper may be operated, the pilot must be lit.

This unit is equipped with a safety pilot which will permit operation of the main burner only when there is an adequate pilot flame.

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1. Open main gas supply to machine.

2. Tip the kettle from the horizontal position as if to be dumping popped corn.



3. Make sure gas control knob is in the OFF position. Wait 5 minutes for the area to clear out any gas. If you then smell gas, STOP. Follow instructions on the front page of this manual.



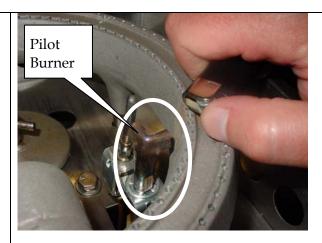
4. If you do not smell gas, rotate the Gas Safety Valve counter clockwise to the "Pilot" position.



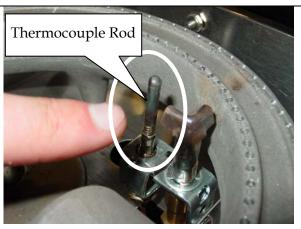
5. Hold down the button marked "Flow Index".



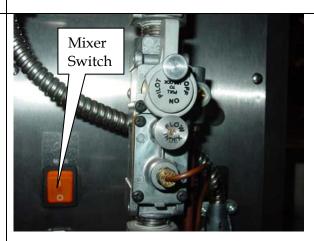
6. While holding the "Flow Index" button down, apply a flame to the pilot burner.



7. Once the pilot burner is lit, continue to hold down the "Flow Index" button for one minute, then release. This will allow time for the thermocouple to sense the presence of a flame. If the pilot goes out when the button is released, repeat step 6. If the pilot refuses to stay lit, make sure the thermocouple rod is directly in the pilot flame.



8. After the pilot remains lit, rotate the Gas Safety Valve to the "On" position. Please note, the word "On" will be upside down. The flame can be reduced by rotating the valve counter-clockwise.



9. Return the kettle to its horizontal seated position. The main burner to cook the popcorn will not ignite until the Mixer Switch is turned to the ON position.



10. The mixer switch is located on the back panel of the pedestal near the Gas Safety Valve, see photograph in step #8.



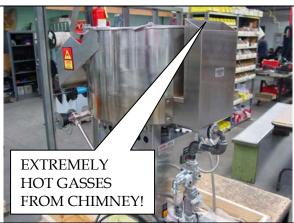
Switch in OFF position

Switch in ON position

11. The Air Mixer-p/n 1323 is pre-set at the Factory for optimal operation. However, if orange flames appear, it will be necessary to adjust until an even blue flame is achieved. This is done by using a flat head screwdriver to loosen the screw and moving the Air Mixer collar up or down. Once all the flames are blue, tighten the screw once more.



12. WARNING: THE CHIMNEY
BEHIND THE KETTLE IS
VENTING EXTREMLY HOT
GASSES FROM THE BURNER
BELOW! DO NOT PLACE HAND
OR ANY OTHER PART OF YOUR
BODY OVER THIS AS IT WILL
BURN YOU INSTANTLY!



13. To shut down the popper, turn off the Mixer switch. This will stop the flow of gas to the main burner.



14. The Gas Safety Valve now can be returned to the "Off" position by first pulling OUT the lock pin then rotating the valve clockwise to the "Off" position



15. Please note that the lock pin must be pulled out before rotating the valve.



Normal Position

Pulled out

16. Gas Safety Valve rotated clockwise to "Off" position.



The popper is loaded through the front hinged opening to which the counter-weight is attached. After being loaded, this cover is closed by turning the counter-weight. As the corn pops, it will touch the cover and the counter-weight will swing it open, removing all pressure from the popping corn. This gives you maximum expansion.

With this machine we are sending a measuring cup for popcorn, a 20 oz. measuring cup for oil and a salt measure. The recommended charge of popcorn, popping oil and salt or sugar is:

#### 60 oz of Salted Corn

1 quart of raw popcorn (heaping full - 60 oz. - 1775mL) 1 cup popping oil (20 oz. - 590 mL) 2 salt measures of popcorn salt (5 teaspoons - 25 mL)

# 60 oz of Sugar Corn

Raw popcorn (48 oz. – 1420mL) Popping oil (15 oz. – 445 mL) Sugar (29 oz – 860 mL)

- 1. If equipped, move the switch to either the salt or sugar location.
- 2. If equipped with Integrated pump option, the pump will need to be primed prior to first use. This can be done by removing the oil line connected to the kettle and pour (or squeeze) oil into the hose connected to the pump. The oil will run into the pump. The pump needs to have some oil in the pump gears for the oil to pump. Caution: running the pump dry for extended periods of time will damage the pump.
- 3. Fill the corn measure with raw popcorn and add salt or sugar. Raise cover of popping pan and pour in raw corn. Immediately add one cup of popping oil. **Do not put popping oil in popping pan before raw popcorn. Never put popping oil into overheated pan.** If equipped with pump, press the dispense button after the corn is added to the kettle.
- 4. Refill the measures with charges of popcorn, seasoning and salt in preparation for next popping. After making two or three poppings, it should not require over four minutes to make a complete popping.
- 5. When corn is finished popping, lift the kettle toward you and dump the kettle. You may need to use a spatula to remove residual corn left in the kettle.
- 6. Repeat steps 3 through 4 until done popping. If not popping continuously, it is recommended that the mixer is turned off, which will turn off the flame but leave the pilot lit. Turn mixer switch back on when ready to pop again.

Always empty popper promptly when corn stops popping and never leave machine unattended while in operation.



**WARNING!** When finished popping be sure to immediately turn off the main burner and pilot burner to avoid over-heating popper pan. If you plan to pop again soon, the pilot burner may be left on but the pan should be left in the dumped position so that the pilot flame does not heat the pan.



If popper should become overheated, turn off gas and wait until pan cools before attempting further poppings. Contact with a hot popping kettle may result in serious burns or scalds.

## X. SERVICE INSTRUCTIONS



In the case of improper operation, only a qualified person should perform the following diagnostic checks, and, if necessary, corresponding adjustments and repairs. Many of the following procedures may present an electrical shock hazard and can cause serious injury or death.



Perform work only on de-energized circuits. Failure to do so may lead to electrical shock resulting in personal injury or death.

#### A. Parts

When ordering parts, refer to the parts diagram included in this manual. Always supply the serial number, model number, and voltage of your popcorn machine.

# B. Kettle Temperature Control (If supplied)

#### 1. TEMPERATURE CONTROL OPERATION

a. The temperature control is installed as a safety device to prevent the overheating of the kettle if the machine is left unattended momentarily while in operation.



**CAUTION:** If the corn has dried out, it will not finish popping at normal temperatures and the light will go out early. <u>DO NOT ADJUST KETTLE</u> TEMPERATURE BASED ON POOR QUALITY CORN.



If set too high (over 500°F, 260°C), the digital temperature control can cause a serious fire hazard.

- b. <u>Salt/Sugar Option</u>: The indicator lights on the switchplate will reflect whether the Salt/Sugar switch is in the sugar mode or salt mode. When the Salt/Sugar switch is in the sugar mode, the digital temperature control alone controls the heat. When the switch is on the salt side the digital temperature control works the same way with one exception. When the digital temperature control opens, it activates a timer which allows the heat to stay on for extra time allowing the salted corn to pop.
- c. Digital Control does not have a thermostat but a thermocouple on the bottom of the pan.

## 2. DIGITAL TEMPERATURE CONTROL ADJUSTMENT



**CAUTION**: If the machine is equipped with the Salt/Sugar option, the temperature control should <u>only</u> be adjusted when the switch is in the sugar mode. When in salt mode, refer to "Salt Timer Adjustment" section.

- a. Press the "set" button.
- b. Use the up or down arrow buttons to adjust the temperature up or down.
- c. Press the "set" button again. (Note that for safety, this range is limited)

- d. The display will show the temperature go up and down.
- e. You should only raise or lower the temperature 5-10°F at a time.
- f. Set temperature so that the burner shuts off at the correct temperature.

<u>KETTLE</u> <u>SALTED CORN</u> <u>SUGAR CORN</u> 60 OZ. 400-415° F(204-213° C) 375-385° F. (190-193° C)

#### 3. CHECKING TEMPERATURE CONTROL

There are two ways of checking that the temperature control is set correctly.

- a. Place a pyrometer over the thermocouple position and turn the kettle heat on. Watch to see that the kettle heat shuts off at the correct temperature. Make adjustments as needed.
- b. The temperature control may be adjusted by observing the operation of the indicator light as described in the "Temperature Control Operation" section. Adjust the temperature control so that the kettle heat shuts off 10 to 20 seconds before the corn finishes popping and the kettle is dumped.



Do not adjust the temperature so high that the pan smokes at the end of the popping cycle. If set too high (over 500°F or 260°C), the kettle can become a serious fire hazard.

- 4. SALT TIMER ADJUSTMENT (For machines supplied with Salt/Sugar Option)
  - When the Salt/Sugar switch is in the sugar mode, the digital temperature controller alone controls the heat. When the switch is in the salt mode, the temperature control works the same way with the exception that when the temperature control opens, it activates a timer, which allows the heat to stay on for an extended period of time allowing the salted corn to pop. The salt timer is located in the pedestal and is marked "Salt Timer". In salt mode:
  - a. Ideally, the heat will shut off 10 to 30 seconds before the kettle needs to dump. If the heat turns off 30 seconds or more before the corn finishes popping, the timer is set too low and is in need of adjustment. If the heat does not turn off before the corn finishes popping, the timer is set too high and is in need of adjustment.
  - b. There are two adjustments on the timer. The small adjustment knob sets the maximum time the timer can run. Cretors will normally set this adjustment for 1m.

10s = 0-10 seconds 1m = 0-1 minute <del>10m = 0-10 minutes</del> Never use this setting!!

The larger adjustment knob sets the actual run time (percentage of time allowed by the small adjustment knob). Example: If the maximum setting is set for 1m and the large knob is set at .5, the timer will run for 30 seconds. In this case, the heat will stay on 30 seconds after the temperature control opens.

# XI. CLEANING/SANITATION INSTRUCTIONS



Do not clean heated surfaces until they have been given sufficient time to cool. Failure to do so may result in serious burns or scalds.

# A. Popping Kettle

1. The Cretors kettle is designed to be cleaned in place. There is no need to remove the kettle to clean.



Do not attempt to clean a hot kettle. Doing so may result in serious burns or scalds.

Do not throw ice into a hot kettle. Doing so can cause damage to the pan and invalidate the warranty.

- 2. The kettle is polished stainless steel and is very easy to clean if oil is not allowed to burn. After the final popping, the best practice is to wait until the oil just begins to solidify, then take a cotton towel or absorbent rag and wipe the kettle. Once the oil is allowed to completely solidify, it can become more difficult to remove. We recommend coconut oil for your Cretors popper; it will not stick or burn as easily as other oils.
- 3. A thorough cleaning every week with CKC cleaning compound is recommended. This will prevent the accumulation of carbon on the bottom and internal sides of the kettle. When boiling the CKC cleaning compound in the kettle, do not fill the kettle with more than ¾" high of water inside the kettle. If the kettle has been overheated or oils that tend to carbonize are used the normal cleaning procedures may not suffice. Increase frequency as needed.

Cretors has developed a cleaning kit for your Giant machine. The kit is sold separately. If you need more information, please feel free to contact your local distributor or call Cretors at 1-800-228-1885.

- 4. Cretors Outside Kettle Cleaner COC should be used periodically to remove popping oil that may become baked on to the outside of the kettle.
- 5. To remove the kettle cover, first remove the rear pin by rotating the loop of the pin so that the pin can be pulled out of the two kettle tabs. Next, remove the front pin by rotating the loop of the pin so that the pin can be pulled straight out of the hinges and apron. As the pin is pulled out, hold the front cover as it will fall off when the pin is removed. Lastly, lift off the rear cover and then the apron. To remove the apron, lift straight up where the tabs insert into the kettle, then pull the tabs out, one side at a time until the apron is fully disengaged from the kettle
- 6. The kettle agitator assembly should be removed after every 40 hours of operation, clean thoroughly and lubricate with graphite or high temperature molybdenum grease. The stirrer blade is disassembled by removing the anti-pak pin that goes through the top of the stirrer blade. Lift off the stirrer blade.

## XII. MAINTENANCE INSTRUCTIONS

- A. Contact the factory, the factory representative, or a local service company to perform maintenance and repairs.
- B. Examine the venting system of the popper monthly to assure there are no holes or deterioration.
- C. Also see "cleaning and sanitation section" above to keep your popper working in ideal condition.

# ADDITIONAL OPERATING INSTRUCTIONS

In addition to the standard operating instructions, these poppers have been installed with beacon lights and a timer. The timer should be set so that once the heat shuts off, the corn is allowed to finish popping (usually 10-20 seconds) before the beacon light comes on, visually helping the operator to know to dump the kettle. The time should be adjusted for your recipe.

Note: Even if operator decides not to "use the delay timer", the timer must be set to more than zero (0) seconds or else the beacon light will never reset and turn off.

If supplied with optional oil manifold, the holding tank of popping oil should be positioned at a higher level then the manifold to assure the manifold is always flooded with oil.

Note: This system is designed to work with popping oils that stay liquid at all times such as canola and sunflower oils. If coconut or similar oils are used, care must be taken to keep all the lines heated at all times or the lines will become hard and blocked. Lines will need to be drained nightly or when not used for extended period of times depending on temperature.

The pumps will need to be primed initially. First assure the lines are connected to the oil manifold and the manifold is full of liquid oil. To prime the pumps:

- 1. Remove the quick disconnect above the pump and pour some popping oil into the line and or fitting. Using a squeeze bottle filled with oil will make this process much easier.
- 2. Insert the quick disconnect back into the fitting.
- 3. Then turn on the oil pump switch on the popper and pressing the dispense button on the front of the kettle.
- 4. Repeat this process until oil flows into the kettle.

# ADDITIONAL SANITATION INSTRUCTIONS



Be certain the machine is turned off and power is unplugged before sanitizing this machine unless a specific cleaning procedure requires power to the machine. Failure to do so could result in injury or death.



Do not clean heated surfaces until they have been given sufficient time to cool. Failure to do so may result in serious burns or scalds.

In addition to the standard cleaning and sanitation instructions, these poppers have been installed with check valves and in-line filters prior to the pump. The filter is cleanable and when the lines are drained and cleaned, so should the filter. The body can be unscrewed and the screen filter can be removed and cleaned. Depending on the oil used, the lines should be drained and cleaned regularly, along with the rest of the kettle and conveyor.

Hot water can be pumped through the lines and pump to clean but **IMPORTANT:** When system is clean, you must then cycle the system with oil to prevent any damage to the pump. **Never leave the pump wet with water only.** Mineral oil may be used after cleaning to lubricate the pump gears.

This manual is filled with time-saving and money-saving information regarding your Cretors popcorn popper. There is nothing, however, more important than the safety aids and warnings found throughout this document.

If you have any questions regarding the operation or cleaning of your Cretors popcorn popper, contact your local distributor. Should you have any difficulties or are unable to reach them, feel free to contact the Customer Service Department at C. Cretors and Company.

Additional copies of this manual can be obtained from C. Cretors and Company at the address listed below. Please provide the model and serial number when requesting additional copies of this manual. There will be a nominal charge for additional copies.

Cretors guarantees this machine to be free of defects in parts, materials and workmanship for two years. Please take this time to fill out the factory registration card and return it to the factory to activate your warranty. If you have any questions concerning the Cretors' warranty, please contact your local distributor or the Customer Service Department at C. Cretors and Company.



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Honoring the Past Engineering the Future