



3243 North California Avenue, Chicago, IL 60618

GIANT POPCORN MACHINE SERVICE MANUAL

**120/208 - 240 Volt,
Single Phase, 60 Hz**

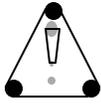
**100/200 Volt
Single Phase, 60 Hz**

**230 Volt, 230/380 Volt
Single and Three Phase, 50 Hz**

**400 Volt, 3N~
Three Phase, 50 Hz**



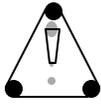
READ and UNDERSTAND these servicing, and safety instructions before servicing this popcorn machine

SAFETY FIRST

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



"The employer shall instruct each employee in the recognition and avoidance of unsafe conditions and the regulations applicable to his work environment 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.

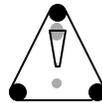
I INTRODUCTION

This manual is filled with time-saving and money-saving information regarding your Cretors popcorn machine. There is nothing, however, more important than the safety aids and warnings that are found 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 operation and accident prevention.

If, after reviewing this manual, anything is unclear or technical problems are encountered, contact the dealer from whom you purchased your machine for assistance and 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.

II SAFETY ALERT SYMBOL

The symbol shown below is used to call your attention to instructions concerning your personal safety and the safety of others. Watch 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.



III PURPOSE OF MANUAL



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



This manual should be kept available to maintenance personnel.



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

IV PRODUCT IDENTIFICATION

CRETORS POPCORN MACHINE
GIANT Models: G20EP, G32EP, G48EP

ELECTRICAL SPECIFICATIONS: Giant Models are available in the following Electrical configurations:

100/200 Volt, Single Phase, 60 Hz
120/208 Volt, 120/240 Volt, Single and Three Phase, 60 Hz
230 Volt, 230/380 Volts, Single and Three Phase, 50 Hz

MACHINE SPECIFICATIONS:

MODEL G20EP	GIANT 20 OZ. ELECTRIC WITH PUMP
Capacity:	20 oz. All-Steel Kettle, 400 one-ounce servings per hour.
Wattage:	2950 watts
Dimensions:	10-5/8" D x 10-1/2" W x 27-1/2" H - - - - 27 cm D x 26 cm W x 70 cm H
Net Weight:	63 lbs. (28.6 kg)
<hr/>	
MODEL G32EP	GIANT 32 OZ. ELECTRIC WITH PUMP
Capacity:	32 oz. All-Steel Kettle, 640 one-ounce servings per hour
Wattage:	4500 watts
Dimensions:	10-5/8" D x 10-1/2" W x 31-3/4" H - - - - 27 cm D x 26 cm W x 81 cm H
Net Weight:	74 lbs. (33.6 kg)
<hr/>	
MODEL G48EP	GIANT 48 OZ. ELECTRIC WITH PUMP
Capacity:	48 oz. All-Steel Kettle, 960 one-ounce servings per hour
Wattage:	6050 watts
Dimensions:	10-5/8" D x 10-1/2" W x 31-3/4" H - - - - 27 cm D x 26 cm W x 81 cm H
Net Weight:	74 lbs. (33.6 kg)

VI CONTROL SWITCHES

KETTLE HEAT	-Turns the kettle heat On/Off
AGITATOR	-Turns the stirrer blade motor On/Off
OIL	-Provides power to the oil power
DELIVERY	-Initiates the pump cycle
CORNDITIONER	-Controls customer component
EXHAUST	-Controls customer component
LIGHTS	-Controls customer component
CIRCUIT BREAKER	-Push to reset - provides protection to all circuits, except the kettle.

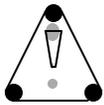
VII INSTALLATION INSTRUCTIONS

1. Location

Choose a location for your Cretors popcorn machine to maximize the ease of operation and maintenance procedures. Giant pedestal popcorn machines are designed to be installed on the customers counter or custom design cabinet. OEM option machines are supplied with components to permit them to be installed into a users cabinet and control the cornditioner, lights and exhaust in the cabinet (see details below). Check your local building and fire codes for location restrictions.

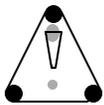
2. Power Supply

A. Check the nameplate to determine the required power supply.



Connect your popcorn popper only to the correct power source. Failure to do so may result in personal injury or death and may damage your popper.

B. C. Cretors and Company recommends dedicated circuits for the Giant model popcorn machine. The Giant model poppers require a dedicated circuit to avoid voltage drop in the supply wiring. Check your local electrical codes regarding fuse or circuit breaker requirements.



Make certain your popcorn machine is properly grounded. Failure to do so may result in damage to your equipment or present a shock hazard.

3. Connecting Machine to Power Supply

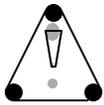


A. Perform work only on de-energized circuits. Failure to do so may lead to electrical shock resulting in personal injury or death.

- B. Make certain that power supply circuit breakers are in the 'OFF' position.
- C. Locate the pedestal and bolt it down securely using the four bolt holes provided in the base of the pedestal.
- D. Power should be connected through one of the four large holes in the base of the pedestal.
- E. The electrical connection is made to the terminal strip mounted located to the right of the of the main switch.

4. OEM Option Pedestals

- A. OEM OPTION machines are designed to supply power to the components normally associated with a popcorn machine. The primary features are a power cord with plug and a flexible armored cable to be connected to the users conditioner assembly (15 amp). In addition, a terminal strip inside the pedestal provides a connection point to a switch (15 amp) that will control a users exhaust fan. Mounting studs for a fluorescent ballast and a connection point for a light circuit are also supplied.
- B. EXHAUST FAN CONTROL. Machines may be equipped with a time delay fan control This control provides a timer controlled switch that will turn on a customers exhaust fan when the kettle heat is turned on. When the heat is turned off the fan will continue to run for the time set on the timer in the pedestal. This circuit only provides a switch, it does not supply any power.

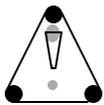


All electrical connections outside the pedestal must be done in accordance with appropriate electrical codes and requirements.

4. Pump Installation

Refer to the instruction manual supplied with the pump to be installed in the machine.

VIII SERVICE INSTRUCTIONS



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

1. Parts

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

2. Kettle Temperature Control

THERMOSTAT OPERATION

A. The thermostat is installed as a safety device to prevent overheating of the kettle if the machine should be left unattended momentarily while in operation. The kettle indicator light will shut off when the kettle heat has been shut off by the thermostat. This should be 15 to 30 seconds before the corn stops popping and the kettle is dumped. If the indicator light goes off more than 30 seconds before the corn finishes popping, the temperature is set too low and needs adjustment.



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



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

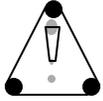
C. Repair parts thermostats shipped from the factory have been adjusted to switch off the current to the heating elements when the kettle temperature reaches 440° F (226° C). The factory setting should prove satisfactory; however, each thermostat must be checked after installation to confirm correct operation. To adjust the thermostat, perform the following operations:

THERMOSTAT ADJUSTMENT

- A. Locate the plugged thermostat access hole on the side of the kettle retainer and remove the plug.
- B. Turn on the kettle heat.
- C. Locate pyrometer over thermostat.
- D. Set thermostat so that the power to heat elements is cut off at the correct temperature.

<u>KETTLE</u>	<u>SALTED CORN</u>	<u>SUGAR CORN</u>
20 OZ.	420° F. (216° C)	380° F. (193° C)
32 OZ.	410° F. (210° C)	370° F. (188° C)
48 OZ.	410° F. (210° C)	370° F. (188° C)

- E. To adjust thermostat, insert a flat blade screwdriver into the slotted adjustment screw and turn COUNTER- CLOCKWISE to raise the temperature or CLOCKWISE to lower the temperature.
- F. Do not adjust more than one-quarter turn at a time. One full turn of the adjustment screw equals approximately 110° Fahrenheit (43°C).



- G. Do not screw the adjusting screw all the way in or out! This will render the thermostat inoperable and the kettle heat will increase to a dangerous level and could possibly cause a "flash fire" if oil is put into the pan.

- H. If no pyrometer is available, the thermostat may be adjusted by observing the operation of the indicator light as described in the Thermostat Operation section. Adjust the thermostat so that the kettle heat is turned off 15 to 30 seconds before the corn finishes popping and the kettle is dumped.



CAUTION 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.

- I. Your final setting should allow the indicator light to cycle off 15 to 30 seconds prior to dumping the kettle.
- J. Observe two or three cycles of correct operation to be certain everything is working correctly.

3. Kettle Removal

To remove the kettle assembly, perform the following operations:

- A) Unplug the popcorn machine from the power supply.
- B) Remove the cover on the terminal box between the pan support legs
- C) Disconnect the three power leads, observing the color of the wires. Correct color code is. Left to right, BLACK, RED, WHITE. – 400 - BLUE, BROWN, WHITE on front terminal left to right, Black on back terminal.
- D) Remove the two bolts on the side of the aluminum pan legs.



- E) Using proper lifting techniques, remove the kettle by lifting it straight up.

- F) Turn the kettle upside down and remove the bolts that hold the dump handle and retainer and lift the retainer off the kettle.
- G) When removing nuts and spacers from the threaded studs on the bottom of the pan, do not wipe off the silver lubricant. Without this lubricant (NEVER SEEZ) the nuts may freeze on the studs and cause the studs to break when the nuts are turned in an attempt to remove them.
- H) When reassembling the kettle, be sure that all electrical connections are secure. A loose connection can heat up and burn off the wires. Tighten the bolts that hold the retainer except for the four bolts around the pan leg plate.

4. Kettle Installation

- A. Set the kettle back in place and replace the two bolts in the pan legs.
- B. Locate the kettle so that the clutch dog lines up with the motor drive head, and tighten the two front bolts that hold the pan leg plate, then tip the kettle and tighten the other two bolts.
- C. Connect the three power leads, observing the color of the wires. Correct color code is left to right, BLACK, RED, WHITE.

Direct wire kettles only

- D. Replace the terminal box cover.
- E. Turn on the agitator motor and dump the kettle. If the drive head does not engage and disengage freely, readjust the kettle.

5. Kettle Spring Adjustment

The purpose of the kettle counter balance springs is to reduce the force required to dump the kettle. The spring collars are held in place by set screws that fit into holes drilled on the bottom of the cross shaft. The spring collars have five holes that the spring fits into. By turning the collar around, all five of the holes may be used for spring tension adjustment.

When correctly adjusted the springs will neutralize the weight of the kettle. To set the springs raise the kettle to a point where it is balanced. The long leg of the 1902 spring should be just beginning to touch the bar on the bottom edge of the hinge casting and the 1903 spring will begin to move away from the bar. If the springs press against the bar too

soon the kettle will seem lighter but the springs are fighting each other. This condition will shorten the life of the springs.

An important part of this assembly are the two washers between the 1902 spring and the plate welded to the cross shaft. They act as both bearings and spacers; without them the spring may have a short life.

IX TROUBLE SHOOTING

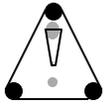
1. Problem - Popping is slow---(Slow popping on first cycle is normal)

QUESTION: Were the correct amounts of corn and oil used?

Refer to the chart in the operating section for the correct quantities.

QUESTION: Does the kettle indicator light go out more than 30 seconds before the corn finishes popping?

YES! Temperature set too low - See section on how to adjust temperature.



CAUTION If the corn has dried out, it may not finish popping at normal temperatures, and the light may appear to go out early. **DO NOT ADJUST KETTLE TEMPERATURE BASED ON POOR QUALITY CORN.**



CAUTION 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.

NO!

- A. Voltage may be low - check voltage at circuit breaker with kettle heat 'ON'. Extension cords or inadequate wiring will provide full voltage, if no load is applied. Once the kettle heat and auxiliaries are turned on, the voltage may drop 5 to 10 volts.
- B. If indicator light stays 'ON', for the full popping cycle one element in a multi-element pan may be have failed. Use an ammeter to diagnose.

Place the ammeter around the black or red lead to the popper kettle. The following current draws are normal:

<u>KETTLE SIZE</u>	<u>AMPS @ 200V.</u>	<u>AMPS @ 208V.</u>	<u>AMPS @230V.</u>	<u>AMPS @ 240V.</u>
20 oz.	12.5	13.0	10.8	11.2
32 oz.	19.6	20.4	17.0	17.7
48 oz.	26.8	28.1	23.4	24.4

380V – Place the ammeter around the black or brown lead to the popper kettle

<u>KETTLE SIZE</u>	<u>AMPS @ 380V</u>	
	<u>Brown</u>	<u>Black</u>
32 oz.	8	9
48 oz.	11	8.2

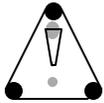
A low reading indicates a problem in the kettle. One or more of the heat elements may not be functioning properly. If the element is not functioning, the possible causes are either that the element has burned out or a lead wire has burned off one of the element terminals due to a loose connection. In either case the kettle must be removed and the problem identified. See service section for kettle removal instructions.

2. Problem - Kettle Will Not Heat

QUESTION: Do any of the other components work - motor, light, etc.?

NO! Check power supply:

- A. Is machine plugged in?
- B. Is the receptacle live?
- C. Is machine plugged into the proper voltage? Measure with voltmeter and compare to specification on nameplate of machine.



Do not attempt electrical repairs on the power supply circuit unless you are qualified to do so. The electrical shock associated with line voltages can cause serious injury or death.

YES!

- A. Problem is in machine



The following procedures are performed with the power 'ON'. As with any electrical repairs, there is a shock hazard present.

Check the relay. The Giant uses a relay to control the power to the popper pan heat elements. To check the relay, perform the following operations:

- a) To gain access to the relay, remove the switch plate.
- b) Using a voltmeter, check the power to the relay coil, these are the small terminals in the center.

- c) At room temperature, the temperature control should be calling for heat and providing power to the relay. If the coil reading is not approximately 230 volts, the problem is in the thermostat.
- d) If the coil reading is approximately:

Elements	Coil	Relay (top to bottom)	
		BAD	GOOD
200 Volts	100 Volts	200 Volts	0 Volts
208 Volts	120 Volts	208 Volts	0 Volts
230 Volts	230 Volts	230 Volts	0 Volts
240 Volts	120 Volts	240 Volts	0 Volts
400 Volts	230 Volts	230 Volts (same pole)	0 Volts (same pole)

B. Problem in kettle.

- a) Remove kettle (see Service Section for removal instructions)
- b) Check for short circuits inside the kettle.
- c) If wires must be replaced, be sure to use nickel wire supplied Cretors.
Conventional copper or nickel plated "stove" wire will have limited life.
- d) Make a visual check for broken, loose, burned or heat damaged wires. If there are no obvious broken or loose wires shorting out on the kettle, the elements must be checked.
- e) Perform a continuity test on the elements. It is possible that one of the elements has burned through its insulation and casing and is shorting out directly to the kettle bottom.

Continuity test

Remove the nickel buss bars that connect the electrical terminals on the heat elements.
Check each element between the following points:

Terminal to terminal	1.	Continuity-functioning properly
	2.	No continuity-burned element; replace.
First terminal to element case	1.	Continuity to case from terminal indicates a grounded element; replace.
	2.	No continuity - functioning properly
Second terminal to element case	1.	Continuity to case from terminal indicates a grounded element; replace.
	2.	No continuity - functioning properly

20 oz. - 208V elements	1983-D	9000 Watt - 48.1 Ω
	1447-D	<u>1800 Watt - 24.0 Ω</u> 2700 Watt - 16.0 Ω (total)
20 oz. - 240V elements	1983-C	900 Watt - 64.0 Ω
	1447-C	<u>1800 Watt - 32.0 Ω</u> 2700 Watt - 21.3 Ω (total)

32 oz. - 208V elements	1448-D	750 Watt - 57.7 Ω
	1528-D	1500 Watt - 28.8 Ω
	1043-D	<u>2000 Watt - 21.6 Ω</u>
		4250 Watt - 10.7 Ω (total)

32 oz. – 240V elements	1448-C	750 Watt – 76.8 Ω
	1528-C	1500 Watt – 33.4 Ω
	1043-C	<u>2000 Watt – 28.8 Ω</u>
		4250 Watt - 13.6 Ω (total)

48 oz. – 208V elements	1010-D	750 Watt – 57.7 Ω
	1808-D	1250 Watt – 34.7 Ω
	1447-D	1800 Watt – 24.0 Ω
	1043-D	<u>2000 Watt – 21.6 Ω</u>
		5800 Watt - 7.5 Ω (total)
48 oz. – 240V elements	1010-C	750 Watt – 76.8 Ω
	1080-C	1250 Watt – 46.1Ω
	1447-C	1800 Watt – 32.0Ω
	1043-C	<u>2000 Watt – 28.8Ω</u>
		5800 Watt - 9.9 Ω (total)

Replace failed heat elements with identical units available from your local dealer or from Cretors. Reassemble and reinstall kettle assembly onto the machine.

3. Problem - Corn Burns

QUESTION: Is the agitator working?

YES!

- A. Check to be certain the stirrer blade is on the bottom of the pan and is stirring the corn.
- B. Were the correct amounts of corn and oil used? See operation section for correct amounts.
- C. Temperature set too high? - adjust temperature.

NO!

- A. Check motor connections - loose wire.
- B. Motor bad - replace.

4. Kettle leaks oil at agitator

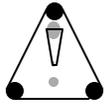
If the kettle is not cleaned on a regular basis the popping oil will build up and turn to carbon on the inside of the blade center. When this happens the clearance between the blade center and the pan center is reduced from 1/8" (3 mm). As this clearance is reduced, the oil will 'wick' up the narrow space and run down the rotating shaft and it will appear that the kettle is leaking. In extreme cases the carbon will cause the blade

center to grip the pan center and turn it. This will loosen the pan center and a serious oil leak will occur. When reassembling, lightly coat the clutch dog shaft with moly grease or a comparable high temperature lubricant.

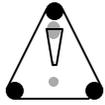
5. Pump

Refer to pump service manual.

X OPERATING INSTRUCTIONS



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



2. 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.



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



4. Always turn 'OFF' the KETTLE HEAT switch 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.

5. To operate your Cretors popcorn popping machine:

- A. Fill the corn drawer with corn (all models) .
- B. Fill the salt box and hang it on the inside edge of the corn drawer.
- C. Connect and adjust the pump as explained in the installation instructions and preheat the popping oil until liquid, if necessary.
- D. Fill the corn measure with corn and the salt measure with salt, and empty these into the kettle. When making sugar corn, add the correct amount of sugar, rather than salt, with the measure of corn.

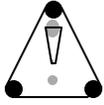


- E. Rotate the kettle lid closed using the counter weight as a handle. Avoid contact with the kettle. Contact with a hot popping kettle may result in serious burns or scalds



- CAUTION!** Always add corn to the kettle before pressing the oil delivery button or adding oil. Failure to do so may result in the oil being heated too rapidly resulting in a fire.

- F. Turn 'ON' the agitator, turn 'ON' the exhaust fan, turn 'ON' the kettle heat.
- G. Press the delivery button to pump the correct amount of oil into the kettle.



NOTE: After the first popping the kettle is hot. Avoid contact with the kettle when adding corn or salt. Failure to do so may result in serious burns or scalds.

Measuring instruments have been provided to accurately measure the proper amounts of popcorn, salt and oil. The correct amount for each popping is:

SALTED CORN

<u>Kettle Size</u>	<u>VOLUMETRIC MEASURE</u>		
	<u>Corn</u>	<u>Oil</u>	<u>Salt</u>
20 oz.	20 oz. 591 ml	6.5 oz. 195 ml	2 tsp.
32 oz.	32 oz. 1083 ml	12.25 oz. 368 ml	3 tsp.
48 oz.	48 oz. 1475 ml	16.5 oz. 495 ml	4 tsp.

SUGAR CORN

<u>Kettle</u>	<u>VOLUMETRIC MEASURE</u>		
	<u>Corn</u>	<u>Oil</u>	<u>Sugar</u>
20 oz.	12 oz. 351 ml	4.25 oz. 127 ml	8.25 oz. 231 grams
32 oz.	19.5 oz. 577 ml	7.5 oz. 225 ml	15.25 oz. 427 grams
48 oz.	28.7 oz. 850 ml	10.5 oz. 315 ml	2.75 oz. 609 grams

H. As the corn pops, it will push the lid open. When the lid has moved about one and one-half inches, it will open completely, allowing the corn to discharge from the kettle. When the corn finishes popping, dump the kettle by lifting the large black handle. Then when the pan is empty, return the kettle to the horizontal position.



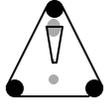
Avoid contact with the kettle when dumping popped corn. Failure to do so may result in serious burns or scalds.

- I. When the oil container is empty, replace with new full container of oil.
- J. Repeat steps B-F as desired, adding corn to the corn drawer and salt to the salt box as necessary.

NOTE: The ideal time for maximum volume is between 2-3/4 to 3-1/2 minutes from the time the corn is placed into the kettle until the time it is dumped. Check the popping time after several popping cycles. Reduce the charge of raw corn if the time is more than 3-1/2 minutes and increase the charge if the time is less than 2-1/2 minutes per popping.

- K. Follow the recommended sanitation procedures.

XI 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.



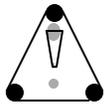
Do not clean heated surfaces until they have been given sufficient time to cool. Failure to do so may result in serious burns or scalds.

1. Popping Kettle



A. Do not immerse an assembled pan in water. This will damage the electrical components and may cause short circuits resulting in electrical shock hazard if power is applied.

B. Do not use steel wool or other similar abrasives to clean the kettle as they will ruin the kettle by removing the nickel plating.



C. Do not attempt to clean the kettle with power connected unless you are boiling the "CKC" cleaning compound to clean the inside of the kettle in step G.



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

E. The kettle has a polished nickel finish and is very easy to clean if oil is not allowed to burn on it. 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.

F. The outside of the kettle should be cleaned with Cretors Outside Kettle Cleaner "COC" periodically to remove popping oil that may become baked on.

G. Clean the interior of the kettle every week with "CKC" cleaning compound. This will prevent the accumulation of carbon on the bottom and internal sides of the kettle. When using "CKC" cleaning compound in the kettle, do not fill the kettle with more than 3/4" high of water inside the kettle. Heat the water to boiling and turn off the kettle heat, don't boil the kettle dry. 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.

H. To properly clean the kettle it is necessary to remove cover and agitator assembly.

2. Kettle cover and agitator removal

- A. To remove the kettle cover, remove the wing nuts, washers and anchor lugs holding the cover onto the kettle shield. Next, remove the kettle shield brackets, screws and wing nuts holding the kettle shield and apron onto the kettle.
- B. The agitator assembly is disassembled by removing the anti-pak pin going through the top of the stirrer blade. Lift off the stirrer blade. Place kettle in dump position and slide the clutch dog and shaft out from the bottom of the pan. (If shaft will not easily drop out, use a hammer and lightly tap on the shaft to break it free. If it is apparent that the clutch dog and shaft cannot be removed, leave it in place, however at sometime in the future it will be necessary to remove and replace the entire pan center and clutch dog assembly. This must be done before the clutch dog shaft becomes hard to turn; when the shaft becomes hard to turn the agitator motor will be overloaded and damaged.)
- C. Clean all parts thoroughly, making sure to use Cretors Kettle Cleaner. Do not use any harsh abrasives or cleaning material. Pay particular attention to the interior of the blade center. Some popping oils will carbonize and build up on the interior of the blade center and create a tight fit on the pan center. (normal clearance is 1/8" -- 3 mm). When this happens oil will 'wick-up' the narrow gap and leak down the clutch dog shaft and give the appearance that the kettle is leaking oil. In extreme cases the carbon will cause the blade center to grip the pan center and turn it . This will loosen the pan center and a serious oil leak will occur. When reassembling lightly coat the clutch dog shaft with moly grease or a comparable high temperature lubricant.
- D. Reassemble cover in reverse order, following the directions above.

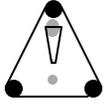
3. Giant Popping Plants

Remove and empty the waste clean-out drawer daily or whenever it is full. Under heavy use this may need to be done more often.

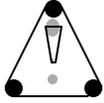
4. Pump

Refer to manual supplied with pump.

SAFETY FIRST



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



"The employer shall instruct each employee in the recognition and avoidance of unsafe conditions and the regulations applicable to his work environment 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.

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, contact your local dealer and if there are any additional questions, 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 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 one year. 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 dealer or the Customer Service department at C. Cretors and Company.



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