



We invented the popcorn machine
THEN JUST KEPT GOING!

176 MITTEL DRIVE, WOOD DALE, IL 60191

**NUGGET
GOLDRUSH
T-2000
POPCORN MACHINES
OPERATION MANUAL**

**120 Volt
Single Phase, 60 Cycle**

**100/120 Volt
Single Phase, 50/60 Cycle**

**230 Volt
Single Phase, 50 Cycle**

Included in this manual:

***One Pop Option**

***Salt/Sugar Option**



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

TABLE OF CONTENTS

I.	Safety Alert Symbol.....	3
II.	Safety First.....	3
III.	Introduction.....	3
IV.	Purpose of Manual.....	4
V.	Product Identification.....	4
VI.	Principles of Popcorn Machine Operation.....	4
VII.	Control Switches.....	5
VIII.	Operating Instructions.....	6
IX.	Sanitation Instructions.....	7

I. 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 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 maintenance 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, 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.

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 back cover 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 popcorn machine.

V. PRODUCT IDENTIFICATION

<u>CRETORS POPCORN MACHINE:</u>	NUGGET COUNTER MODEL: NG6__-__
	NUGGET COUNTER MODEL: NG8__-__
	GOLDRUSH MODELS: GR6__-__
	GOLDRUSH MODELS: GR8__-__
	T-2000 MODELS: T28__-__

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 heating elements are necessarily and unavoidably heated to temperatures high enough to pop popcorn. The temperature is controlled by using a thermostat located inside the kettle to maintain the kettle at an operating temperature of approximately:

465° F (241 °C) for salted corn

390° F (199 °C) for sugar corn



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

- C. The kettle is provided with an agitator to assist in the quick and even distribution of heat throughout the kernels.
- D. The oil is heated to high temperatures in a kettle provided with electric heating elements to reach 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, kettle, or heating elements 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 when necessary to measure corn, oil and salt.

- E. 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 manually lifting the cover. Then pull down on kettle handle, pull towards you and then lift handle up to dump the popcorn into the popcorn case.
- F. The One Pop Option only allows the kettle to pop one batch of corn at a time and then shut down. The One Pop Option makes it impossible to leave a kettle turning on and heating. With the One Pop Option, the kettle heat switch is turned on the way any other machine is, however, the kettle will not begin to heat until the One Pop button is pressed.
- G. The kettle heat indicator light will be on when the kettle is heating. The kettle will heat until the thermostat opens at the end of the popping cycle. When the thermostat opens, the kettle heat indicator light goes out and the kettle begins to cool. The kettle will not begin to heat again until the kettle has cooled and the One Pop button is pressed.
- H. After popping several batches in sequence, the kettle heat indicator light may not go on immediately after the One Pop button is pressed, but will turn on once the kettle cools for one cycle.
- I. The popper is provided with a heat lamp to keep the popcorn crisp and warm. Additionally, the Goldrush and T-2000 have a thermostatically controlled heat pad to keep the corn warm and crisp.
- J. If the machine is equipped with the Salt/Sugar option, the operator moves the toggle switch to either the salt or sugar position for desired corn type. In the salt position, the thermostat will turn off at the sugar temperature but a timer will allow the heat to remain on until the corn has finished popping.

VII. CONTROL SWITCHES

INDICATOR LIGHT	-Indicates kettle heat On/Off.
ROCKER SWITCH	-Turns kettle heat On/Off.
MOTOR SWITCH	-Turns On/Off the agitator.
LIGHT SWITCH	-Turns On/Off light in cabinet and heat pad in GR and T-2000.
ONE POP	-Turns the kettle heat On/Off.
SALT/SUGAR SWITCH	-Sets the kettle temperature to the proper settings.

VIII. OPERATING INSTRUCTIONS



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.



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

- A. 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 and corn. Always add oil to the kettle.
- B. Close the kettle lid by pulling the knob down.



Avoid contact with the kettle. Contact with a hot popping kettle may result in serious burns or scalds.



WARNING! Always add corn to the kettle before adding oil. Failure to do so may result in the oil being heated too rapidly resulting in a fire.

- C. If equipped, move Salt/Sugar switch to desired mode. Turn on the agitator and then turn on the kettle heat.
- D. If the machine is equipped with the One Pop Option, press the One Pop button until the kettle heat indicator light remains on when the button is released.



WARNING! 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 recommended amount for each popping is:

SALTED CORN

<u>Kettle</u>	<u>VOLUMETRIC MEASURE</u>		
	<u>Corn</u>	<u>Oil</u>	<u>Salt</u>
6 oz.	6 oz. 170 grams	2 oz. 60 ml	1 tsp. 5 ml
8 oz.	8 oz. 226 grams	3 oz. 90 ml	1 tsp. 5 ml

SUGAR CORN

	<u>VOLUMETRIC MEASURE</u>		
<u>Kettle</u>	<u>Corn</u>	<u>Oil</u>	<u>Sugar</u>
6 oz.	4 oz. 112 grams	2 oz. 60 ml	2 oz. 60 ml
8 oz.	6 oz. 170 grams	4 oz. 120 ml	4 oz. 120 ml

E. When the corn begins to pop, the kettle cover will raise up. Lift the cover all the way up when the corn finishes popping. A magnet will hold the cover to the top of the machine. Dump the kettle by pulling the large black handle down as far as it will go, pull towards you and then back up. Then, when the pan is empty, return the handle to its original position. Repeat popping steps A-D. On the last popping, return kettle to the level position, turn off the kettle heat and agitator switches and close the kettle cover. Closing the cover will reduce the amount of smoke, which is generated by the kettle.



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

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.

Follow the recommended sanitation procedures.

IX. SANITATION INSTRUCTIONS



Be certain the machine is turned off and power is unplugged before sanitizing this 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.

A. Popping Kettle



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

1. Do not use steel wool or other similar abrasives to clean the nickel plated kettles, as they will ruin the kettle by removing the nickel plating. Stainless steel kettles can be cleaned more aggressively.



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 3.



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

2. The kettle has a polished nickel finish or is a polished stainless steel finish 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 solidified, 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 3/4" 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.
4. Cretors Outside Kettle Cleaner COC should be used periodically to remove popping oil that may become baked to the outside of the kettle.
5. The kettle agitator assembly is disassembled by removing the stirrer blade, counter weight and cover. The kettle agitator assembly should be removed weekly for a thorough cleaning.
6. Clean all parts thoroughly, making sure to use CKC. Do not use any harsh abrasives or cleaning material.
7. Reassemble in reverse order, following the directions above.

B. Cabinet

1. 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.
2. The cabinet glass and cabinet base can be cleaned with any good grade glass or household cleaner suitable for glass and plastic surfaces. The inside of the cabinet can be cleaned with the same cleaner as the outside, if it is the type that has a cleaning agent to cut the oil remaining from the popping operation, and it is acceptable for food contact surfaces.

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 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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**NUGGET
GOLDRUSH
T-2000
POPCORN MACHINES
SERVICE MANUAL**

**120 Volt
Single Phase, 60 Cycle**

**100/120 Volt
Single Phase, 50/60 Cycle**

**230 Volt
Single Phase, 50 Cycle**

Included in this manual:

- *One Pop Option**
- *Salt/Sugar Option**



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

TABLE OF CONTENTS

I. Safety Alert Symbol.....6

II. Safety First.....6

III. Introduction.....6

IV. Specifications.....7

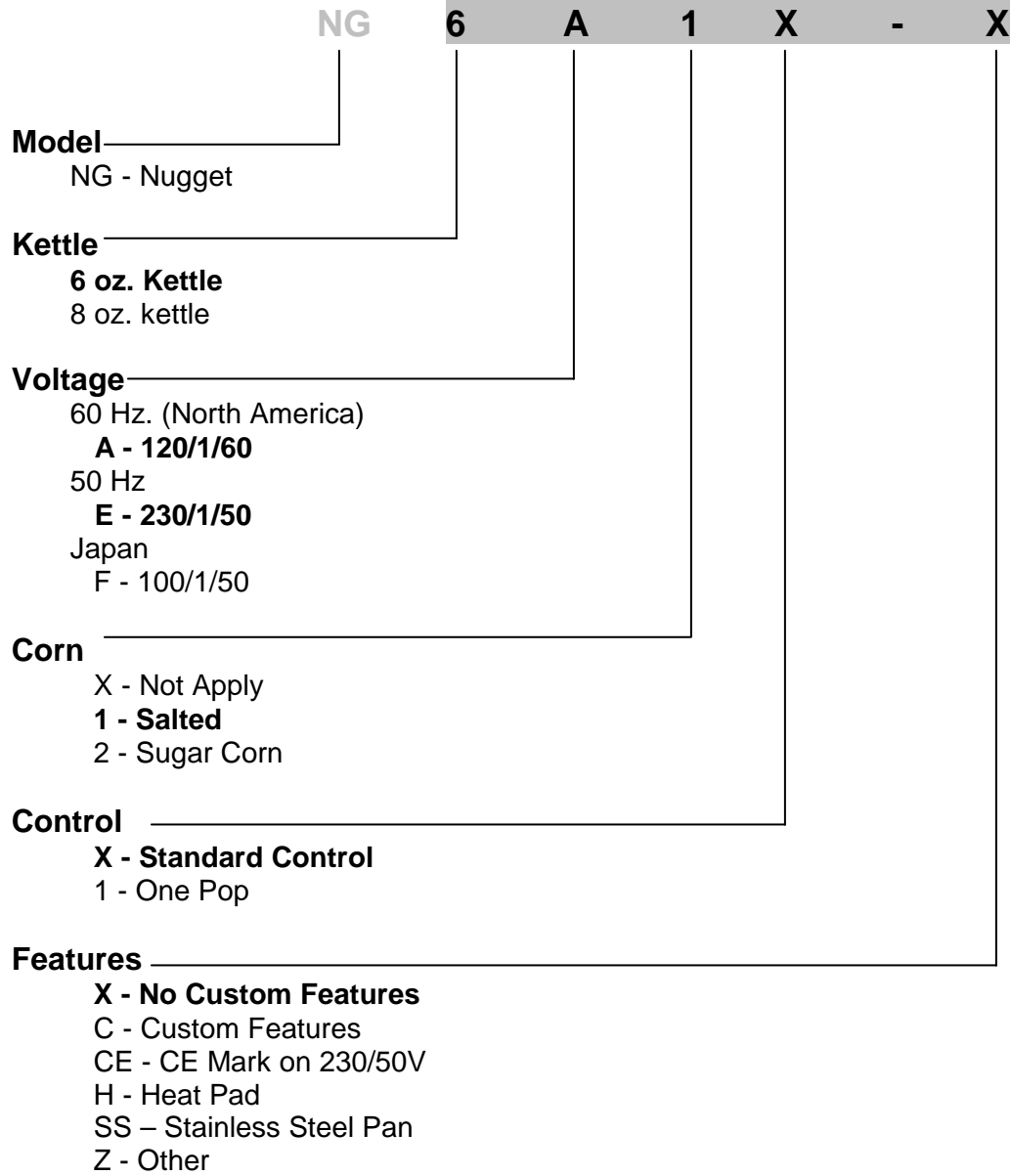
V. Purpose of Manual.....7

VI. Installation Instructions.....8

VII. Service Instructions.....8

VIII. Troubleshooting.....12

Part Number Configuration: Nugget



**Part Number Configuration: Goldrush
Antique Goldrush
Nite Club**

	GR	6	A	1	X	-	A	X	-	X
Model	GR – Goldrush									
Kettle	X – No Kettle 6 – 6 oz. Kettle									
Voltage	60 Hz. (North America) A – 120/160 50 Hz. E – 230/1/50 Japan F – 100/150									
Corn	X – Not Apply 1 – Salted 2 – Sugar Corn 3 – Salt/Sugar Corn (8 oz. kettle only)									
Control	X – Standard Control 1 – One Pop 2 – One Pop with Counter									
Cabinet	X – Stainless Steel Cabinet A – Red Antique Style Cabinet NS – Night Club Cabinet (Stainless Steel) NB – Night Club Cabinet (Black) C – Custom Color Cabinet									
Customer Doors	X – No Customer Access 1 – Wing Doors Customer Side									
Features	X – No Custom Features C – Custom Features CE – CE Mark ON 230/50 V S – Stainless Steel Top SS – Stainless Steel Pan Z - Other									

Part Number Configuration: T-2000
Antique T-2000

T2	8	A	1	X	-	A	X	3	-	X
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- Model** _____
 T2 – T- 2000
- Kettle** _____
 X – No Kettle
 8– 8 oz. Kettle
- Voltage** _____
 60 Hz. (North America)
 A – 120/1/60
 50 Hz.
 E – 230/1/50
 Japan
 F – 100/1/50
- Corn** _____
 X – Not Apply
 1 – Salted
 2 – Sugar Corn
 3 – Salt or Sugar Corn
- Control** _____
 X – Standard Control
 1 – One Pop
 2 – One Pop with Counter
- Cabinet** _____
 X – Stainless Steel Cabinet
 A – Red Antique Style Cabinet
 C – Custom Color Cabinet
- Customer Doors** _____
 X – No Customer Access
 1 – Wing Doors Customer Side
- Base** _____
 X – No Base
 3 - Matching Wagon Base
- Features** _____
 X – No Custom Features
 C – Custom Features
 CE – CE Mark ON 230/50 V
 S – Stainless Steel Top
 SS – Stainless Steel Pan
 Z - Other

I. 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 for this symbol. It points out important safety precautions. It means **ATTENTION! Become Alert! Your personal safety is at risk!** Read the message that follows and be alert to the risk of personal injury or death.



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If, after reviewing this manual, anything is unclear or technical problems are encountered, contact the distributor 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.

IV. SPECIFICATIONS

A. ELECTRICAL SPECIFICATIONS:

Nugget, GOLDRUSH and T-2000 Popcorn Machines are available in any of the following

Electrical configurations:

120 Volt, Single Phase, 60 Cycles

100/120 Volt, Single Phase, 50/60 Cycles

230 Volt, Single Phase, 50 Cycles

B. SIZE SPECIFICATIONS:

MODEL NG6 NUGGET 6 OZ. ELECTRIC COUNTER MODEL

Capacity: 6 oz. All-Steel Kettle, 132 one-ounce servings per hour

Electrical: 1100 watts

Dimensions: 14-5/8"D x 20-1/2"W x 30-3/4" H - - 37.1 cm D x 52.1 cm W x 78.1 cm H

Net Weight: 44 lbs. (19.8 kg.)

MODEL GR6 GOLDRUSH 6 OZ. ELECTRIC COUNTER MODEL

Capacity: 6 oz. All-Steel Kettle, 132 one-ounce servings per hour

Electrical: 1150 watts

Dimensions: 14 D x 20"W x 27" H - - 35.6 cm D x 50.8 cm W x 68.6 cm H

Net Weight: 44 lbs. (19.8 kg.)

MODEL AGR6 ANTIQUE GOLDRUSH 6 OZ. ELECTRIC COUNTER MODEL

Capacity: 6 oz. All-Steel Kettle, 132 one-ounce servings per hour

Electrical: 1150 watts

Dimensions: 14"D x 20"W x 33-1/2" H - - 35.6 cm D x 50.8 cm W x 85.1 cm H

Net Weight: 48 lbs. (21.8 kg.)

MODEL T-2000 T-2000 8 OZ. ELECTRIC COUNTER MODEL

Capacity: 8 oz. All-Steel Kettle, 160 one-ounce servings per hour

Electrical: 1325 watts

Dimensions: 21"D x 21"W x 30-1/2"H - - 53.3 cm D x 53.3 cm W x 77.5 cm H

Net Weight: 65 lbs. (29.25kg.)

MODEL AT2C ANTIQUE T-2000 8 OZ. ELECTRIC COUNTER MODEL

Capacity: 8 oz. All-Steel Kettle, 160 one-ounce servings per hour

Electrical: 1325 watts

Dimensions: 21"D x 21"W x 37-1/2"H - - 53.3 cm D x 53.3 cm W x 86.6 cm H

Net Weight: 70 lbs. (31.5kg.)

V. 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 popcorn machine.

VI. INSTALLATION INSTRUCTIONS

A. Location

Choose a location for your Cretors popcorn machine that maximizes the ease of operation and maintenance procedures. Check your local building and fire codes for location restrictions.

B. Power Supply

1. 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 machine.

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



Make certain the Rocker Switches on the popcorn popper are in the OFF position when plugging into the power source. Failure to do so may result in personal injury or death and may damage your machine.

C. Connecting your Machine to the Power Supply



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

1. Make certain that the power supply circuit breakers are in the off position.
2. Push the plug completely into the receptacle. If the cord has a twist lock plug be sure to turn to lock in position. Turn on the power supply circuit breakers and then turn on the machine rocker switch.

VII. 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.

A. Parts

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

B. Kettle Temperature Control

1. Thermostat Operation

- a. The thermostat is installed as a safety device to prevent overheating of the kettle if the machine is left unattended momentarily while in operation. The operation of the thermostat is indicated by the kettle indicator light. The indicator light should stay on for most of the popping cycle. The indicator light should turn off 10-20 seconds before the corn finishes popping and the kettle is dumped. If the indicator light turns off 30 seconds or more before the corn finishes popping, the thermostat is set too low and is in need of adjustment. See instructions below for Thermostat Adjustment.



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

- b. Repair part thermostats shipped from the factory have been factory adjusted to switch off the current to the heating elements when the kettle temperature reaches approximately 465° F (241°C). The factory setting should prove satisfactory for salted corn; however, each thermostat must be checked after installation to confirm correct operation. See instructions below for Thermostat Adjustment.

2. Thermostat Adjustment

The thermostats on the Nugget, Goldrush, and T-2000 model machines are preset and sealed at the factory and should not need to be adjusted in the field. If popping cycle is fast or slow, adjustments can be made using the following procedure.

- a. Locate the plugged thermostat adjustment hole on the bottom of the kettle retainer and remove the plug.
- b. Locate pyrometer over thermostat.
- c. Turn on the kettle heat.
- d. Press the One-Pop switch. **(FOR ONE POP MACHINES ONLY.)**
- e. Set temperature so that the power to heat elements is cut off at the correct temperature.

Salt/Sugar Option: On the Salt/Sugar switch there is a decal that will be marked Salt on the top and Sugar on the bottom. When the switch is in the up position the machine is in the salt mode and when the switch is in the down position it is in the sugar position. When the Salt/Sugar switch is in the sugar mode, the thermostat alone controls the heat. When the switch is on the salt side the thermostat works the same way with one exception, when the thermostat opens, it activates a timer which allows the heat to stay on for extra time allowing the salted corn to fully pop.



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 TEMPERAUTRE BASED ON POOR QUALITY CORN.

<u>KETTLE</u>	<u>SALTED CORN</u>	<u>SUGAR CORN</u>
6 OZ.	465° F (241°C)	390° F (199°C)
8 OZ.	465° F. (241°C)	390° F. (199°C)

- f. To adjust thermostat, insert a flat blade screwdriver into the slotted adjustment screw and turn counter-clockwise to lower the temperature or clockwise to raise the temperature.
 - g. Do not adjust more than one-quarter turn at a time. Check temperature after each one-quarter turn adjustment.
 - 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 10 to 20 seconds before the corn finishes popping and the kettle is dumped.
 - i. Your final setting should allow the indicator light to cycle off 10 - 20 seconds prior to dumping the kettle.
 - j. Observe two or three cycles of correct operation to be certain everything is working correctly.
3. Salt Timer Adjustment

For the Salt/Sugar machine, the salt timer is located on the top of all popcorn machines under the top cover marked "Salt Timer". If the machine pops sugar corn fine, but there is a problem with salted corn, see below.

- a. If the indicator light turns off 30 seconds or more before the corn finishes popping, the timer is set too low 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

10m = 0-10 minutes

- c. 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 thermostat opens.

C. Kettle Removal

To remove the kettle assembly, perform the following operations:

1. Unplug the popcorn machine from the power supply. Make sure the kettle is not hot.
2. For the Goldrush and Nugget, unplug the kettle from the top of the machine by pulling the locking clips away from plug and then pulling plug out of the receptacle. The T-2000 has a twist lock plug. Twist the plug to pull out of receptacle. For all 230V machines, unplug the kettle from the top of the machine by unscrewing the plug ring then pull down on plug.
3. Remove the nut on the hinge pin and remove hinge pin to release the kettle.



Use proper lifting techniques when removing the kettle assembly to avoid injury to back.

4. Turn the kettle upside down and remove the screws that clamp the flexible conduit where it enters the pan.
5. Remove the nuts on the retainer.
6. Lift the retainer off of the kettle and feed cable in through the fitting. If carbon has formed, careful tapping with a piece of wood or a soft faced hammer around the edge of the retainer will break it loose.
7. 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.

D. Kettle Alignment

1. The kettle level adjustment is made with the popper pan stop, which is located on the kettle support bracket.
2. Loosen the locknut and turn the stop until the pan is level, and then tighten the locknut securely.

Nugget/Goldrush – Loosen the locknut located on the #2423 popper support hanger. This will allow you to move the #2407 popper level screw up and down in the slot on the popper support hanger. Once kettle is level, tighten the locknut.

T-2000 – Loosen the locknut located on the #2621 popper support hanger. This will allow you to rotate the #2646 popper level screw, which has an offset screw head. As you rotate the screw, the kettle will go up and down. Once the kettle is level, tighten the locknut.

VIII. TROUBLE SHOOTING

PROBLEM	POSSIBLE CAUSE	ACTION
Popping is slow.	Incorrect amount of corn and oil used.	Refer to the chart located in the Operations Manual.
	Kettle indicator light goes out more than 30 seconds before the corn finishes popping.	Temperature is set too low. (Refer to Thermostat Adjustment.)
	Voltage may be low.	Check the voltage at the circuit breaker with the 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.
Indicator light stays on.	The element may have started to fail.	Use an ammeter to diagnose.
		Check the amperage draw of the heating elements, by using a clamp-on ammeter. <ol style="list-style-type: none"> 1. Remove the top of the machine by removing the screws that hold the top panel and lift the top off. 2. Turn on the kettle heat. If machine has one-pop option, press the One-Pop button.
Thermostat is stuck in the on position.		Replace Thermostat.



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.

<u>Kettle</u>	<u>Wire Color</u>	<u>Elements</u>	<u>120V Amps</u>
6oz.	Brown Blue	2452-A (1000 watts)	8.3 amps
8oz.	Brown Blue	2615-A (1000 watts)	8.3 amps

<u>Kettle</u>	<u>Wire Color</u>	<u>Elements</u>	<u>100/120V Amps</u>
6oz.	Brown Blue	2452-A (1000 watts)	10 amps
8 oz.	Brown Blue	2615-A (1000 watts)	10 amps
<u>Kettle</u>	<u>Wire Color</u>	<u>Elements</u>	<u>230V Amps</u>
6oz.	Brown Blue	2452-C (1000 watts)	4.2 amps
8oz.	Brown Blue	2615-C (1000 watts)	4.2 amps

PROBLEM	ACTION
<p>A low reading may indicate a problem in the kettle. The heat element may not be functioning properly. If the element is not functioning, the possible causes are:</p> <ol style="list-style-type: none"> 1. The element has burned out. 2. A lead wire has burned off one of the element terminals due to a loose connection. 	<p>In either case the kettle must be removed and the problem identified.</p> <ol style="list-style-type: none"> 1. Remove kettle. (See section Kettle Removal for instructions.) 2. Check for short circuits inside the kettle. 3. If wires must be replaced, be sure to use nickel wire supplied by Cretors. Conventional copper or "stove" wire will have limited life. 4. 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. 5. Perform a continuity test on the elements. It is possible that one of the elements has burned through the insulation and the casing is shorting out directly to the kettle bottom.

Continuity Test and Ohms Test

When checking the Ohms, make sure that the meter probes are making good contact on the terminals. Remove the nickel buss bars that connect the electrical terminals on the heat elements. Using a multimeter, check each element between the following points:

Terminal to terminal	Ohms Reading 120V - 19.2 Ω
	100V - 10 Ω
	230V - 76.8 Ω
	No continuity-burned element; replace.

First terminal to element case Continuity to case from terminal indicates a grounded element; replace.
 No continuity - functioning properly.

Second terminal to element case Continuity to case from terminal indicates a grounded element; replace.
 No continuity - functioning properly.

Replace failed heat element with identical units available from your local dealer or from Cretors.
 Re-assemble and re-install kettle assembly onto the 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.

PROBLEM	POSSIBLE CAUSE	ACTION
Kettle will not heat.	The motor, light or any of the other components do not work.	Check power supply: 1. Is it plugged in? 2. Is the receptacle live? 3. Is the machine plugged into the proper voltage? (Measure with voltmeter and compare to specification on nameplate of machine.)
	Problem is in the machine.	Check the amperage draw of the heating element by using a clamp-on ammeter. Check to determine whether or not heating element has failed. a. At room temperature, the thermostat should be calling for heat and providing power. To insure the One Pop button is working properly. Unplug the main power cord. With top cover removed, unplug the two wire connected to the One-Pop switch. Then using a Multi-Meter check for continuity across the two terminals of the switch when the switch is pressed. If no continuity, replace switch. b. With all wires reattached, plug main power cord in. Turn on the kettle heat switch and press the One Pop button. Check the input on the relay coil. Terminals #1 and #0. For a 120V machine the reading will be 120V and for a 230V machine it should be 230V. c. If the voltage is correct on the relay coil and the pilot light and kettle heat are not on. With a voltmeter check the output on the relay. From terminal #1 or the neutral from the heat switch to terminal #8. The reading should be 120V for domestic machines and 230V for export machines. If no reading, replace relay.



Some of the following procedures are performed with the power on. As with any electrical repairs, there is a shock hazard present.

PROBLEM	POSSIBLE CAUSE	ACTION
Heat shuts off early.	Salt time is set too low.	Adjust salt timer following the instructions.
	Salt/Sugar switch failed.	Remove wire from switch using multi-meter check for continuity across terminals. With the switch on you will have continuity and with it off no continuity. If not replace switch.
With the kettle heat on and if machine is One-Pop, press the One-Pop button. With the top cover removed and before the pilot light shuts off place a voltmeter on #18 on the Salt Timer and any neutral wire that is on. Before the pilot shuts off you should have a voltage read (120V domestic - 230V export) across #18 and the neutral wire. If the pilot light shuts off and there was never any voltage the Salt Timer would need to be replaced.		
Corn Burns	Agitator is not working.	Check to be certain the stirrer blade is on the bottom of the pan and is stirring the corn.
		See section Kettle Alignment for instructions.
Does the stirrer blade sit flat on the bottom of the kettle?	Does the kettle sag when corn is added to the kettle causing the agitator to disengage?	See section kettle alignment Adjustment for instructions.
	Check motor connections.	Loose wire.
	The motor is bad.	Replace.
	The correct amounts of corn and oil were not used.	See Operations Manual for correct amounts.
	Temperature is set too high.	Adjust temperature. See Kettle Temperature Control.

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 distributor 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 two years. Please take this time to fill out the factory registration card and return it to Cretors 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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THEN JUST KEPT GOING!

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