We invented the popcorn machine
THEN JUST KEPT GOING!

176 MITTEL DRIVE, WOOD DALE, IL 60191

DIGITAL DIPLOMAT 48 and 60 oz. POPCORN MACHINE SERVICE MANUAL

120/208; 120/ 240 Volt,
Single and Three Phase, 60 Hz

230 Volt,
Single Phase and Three Phase, 50 Hz

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

100/200 Volt,
Single Phase, 50 & 60 Hz

Included in this manual:
***One Pop Option**
***Salt/Sugar Option**
***Ventless Hood Option**

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

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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 and procedures. 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.



II. SAFETY FIRST



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



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



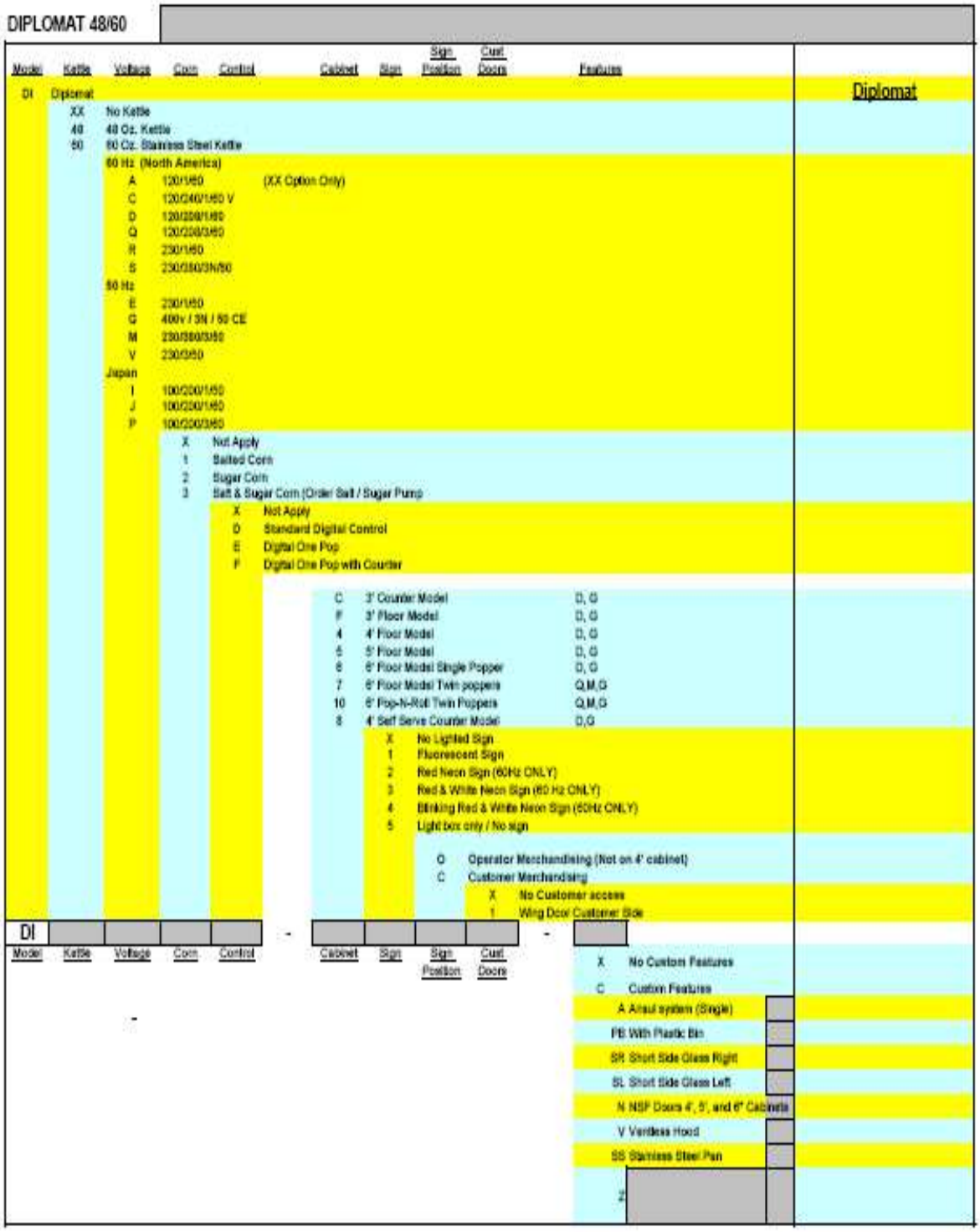
The purpose of equipotential bonding studs, terminals and systems is to join together the metalwork in a product, whether it needs to be grounded or not, so every point is at the same potential/voltage. This bonding is not intended to provide grounding (a separate low resistance ground-fault current path back to the source).

III. 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. 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 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.

CONFIGURATOR 28 NOV



IV. SPECIFICATIONS

A. Electrical Specifications:

Diplomat Models are available in any of the following electrical configurations:

120/208 or 120/240 Volts, Single and Three Phase, 60 Hz
230 Volt, Single Phase, 50 Hz
400 Volt, 3N~, Three Phase, 50 Hz
100/200 Volt, Single Phase, 50 or 60 Hz

B. Size Specifications:

MODEL DI48	**DIPLOMAT 48 OZ. ELECTRIC COUNTER MODEL**
Capacity:	48 oz. All-Steel Kettle, 960 one-ounce servings per hour
Power:	7800 watts
Dimensions:	28"D x 36"W x 50" H - - 71 cm D x 91 cm W x 127 cm H
Net Weight:	189 lbs. (86 kg.)
MODEL DI60	**DIPLOMAT 60 OZ. ELECTRIC COUNTER MODEL**
Capacity:	60 oz. Stainless-Steel Kettle, 1200 one-ounce servings per hour
Power:	7800 watts
Dimensions:	28"D x 36"W x 50" H - - 71 cm D x 91 cm W x 127 cm H
Net Weight:	189 lbs. (86 kg.)
MODEL DI48	**DIPLOMAT 48 OZ. ELECTRIC FLOOR MODEL**
Capacity:	48 oz. All-Steel Kettle, 960 one-ounce servings per hour
Power:	7800 watts
Dimensions:	28"D x 36"W x 77-3/4"H - - 71 cm D x 91 cm W x 197 cm H
Net Weight:	390 lbs. (177 kg.)
MODEL DI60	**DIPLOMAT 60 OZ. ELECTRIC FLOOR MODEL**
Capacity:	60 oz. Stainless-Steel Kettle, 1200 one-ounce servings per hour
Power:	7800 watts
Dimensions:	28"D x 36"W x 77-3/4"H - - 71 cm D x 91 cm W x 197 cm H
Net Weight:	390 lbs. (177 kg.)
MODEL TDI48	**TWIN DIPLOMAT 48 OZ. ELECTRIC 6′ FLOOR MODEL**
Capacity:	2 - 48 oz. Kettle, 960 one-ounce servings per hour
Power:	First popper 8850 watts – second popper 6520 watts
Dimensions:	28"D x 72"W x 77-3/4"H - - 71 cm D x 183 cm W x 197 cm H
Net Weight:	610 lbs. (277 kg.)
MODEL TDI60	**TWIN DIPLOMAT 60 OZ. ELECTRIC 6′ FLOOR MODEL**
Capacity:	2 - 60 oz. Stainless-Steel Kettles, 1200 one-ounce servings per hour
Power:	First popper 8850 watts – second popper 6520 watts
Dimensions:	28"D x 72"W x 77-3/4"H - - 71 cm D x 183 cm W x 197 cm H
Net Weight:	610 lbs. (277 kg.)

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.

VI. INSTALLATION INSTRUCTIONS

A. Location

Choose a location for your Cretors popcorn machine that maximizes the ease of operation and maintenance procedures. Be sure to 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 popper.

2. C. Cretors and Company recommends dedicated circuits for the Diplomat model popcorn machine. The Diplomat model poppers 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 your popcorn machine is properly grounded. Failure to do so may result in damage to your equipment or present a shock hazard.

C. Connecting your Machine to the Power Supply

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 the lock in position.

3. If the supply cord is damaged, a Cretors approved service agent, or a qualified Cretors employee must replace it in order to avoid a hazard.

D. Pump Installation (and Pump Timer Adjustment for Salt/Sugar Machines)

Refer to the Service Manual included with the pump to be installed in the machine. When the Diplomat is equipped with the salt/sugar option, also see below for additional information.

1. For the Salt/Sugar machine the pump timers are located in the machine not in the pump. One timer is marked “Salt”, the other “Sugar”.

2. On the 3’ Diplomats the timer is located under the wire cover by the rocker switches.

3. On the 4’, 5’, and 6’ machines the timers are located on the top of the machine under the cover. They will be marked Salt and Sugar timer.

4. To adjust the pump time, use the following procedure:

a. 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 10s.

10s = 0-10 seconds
1m = 0-1 minute
10m = 0-10 minutes

b. 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 10s and the large knob is set at .9, the timer will run for 9 seconds. Adjust to taste for both timers.

E. Counter Model Installation

The Counter Model Diplomats have 4" legs, which must be attached at the time of installation. The legs are required to comply with Sanitation Standards.

F. Ventless Hood Installation

The Ventless hood Model Diplomats have the Giles ventless hood integrated into the popper. If the hood is not functioning, neither will the popper. Once the machine is plugged in, turn on the "exhaust switch". The hood will sound an alarm and then the alarm should shut off. Once the hood is operational, the rest of the machine functions as normal. Also refer the Giles hood instruction manual for additional information on operation and service.

G. Ansul Installation

An Ansul service technician must be called out to activate the system at start up. There will be no power to the machine until this is done.

VII. 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 with this manual. Always supply the serial number, model number, and voltage of your popcorn machine.

B. Kettle Temperature Control

1. TEMPERATURE CONTROL OPERATION

a. A digital 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. The digital Temperature Control senses kettle temperature from a thermocouple mounted on the bottom of the pan. The kettle indicator light indicates the operation of the temperature control. The indicator light is located on the support column or on the ceiling of the cabinet near the support column. The indicator light should stay on for most of the popping cycle. The indicator light will 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 digital temperature control is set too low and in need of adjustment. If the indicator light remains on after the corn has finished popping the digital temperature control is set too high.



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



CAUTION: Setting the kettle temperature too high (over 500°F 260ºC), can cause a serious fire hazard.

b. Salt/Sugar Option: The indicator lights on the column switch plate 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, allowing the corn to finish popping.

2. DIGITAL TEMPERATURE CONTROL ADJUSTMENT



CAUTION: If the machine is equipped with the Salt/Sugar option, the temperature control should **only** 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 power to heat elements is shut off at the correct temperature.

KETTLE	SALTED CORN	SUGAR CORN

48/60 OZ.	410-420° F(210-215° 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.

   c. Observe two or three cycles of correct operation to be certain everything is working correctly. Your final setting should allow the indicator light to cycle off 10 to 20 seconds prior to dumping the kettle.

4. SALT TIMER ADJUSTMENT

   For the Salt/Sugar machine, the salt timer is located on the top of all Diplomats 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 = Caution: Never set the timer to 10m

   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.

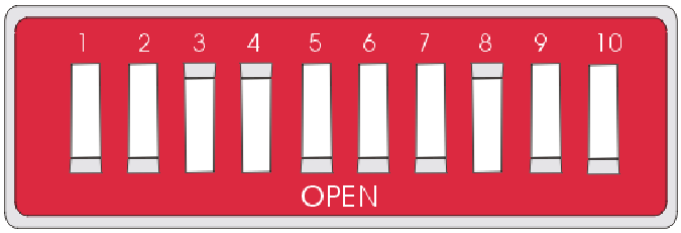
5. SALT/SUGAR WITH ONE POP ADJUSTMENT

   a. If the Salt/Sugar switch is in the sugar position, use the "Digital Temperature Control Adjustment" section.

b. If the Salt/Sugar switch is in the salt position, the temperature is adjusted on the One Pop Timer/Relay.

c. On the Relay there are dipswitches very similar to the timer in our 7700-7900 pumps.

d. From the factory the dipswitches 1, 2, 5, 6, 7, 9 and 10 will be on. To turn the dipswitches ON the dipswitch needs to be pressed down to the number side opposite of the open side.



Switch #6 = 5 seconds
#7 = 10 seconds
#8 = 20 seconds
#9 = 40 seconds

Example: If you turn #7 and #9 on, the time delay will be 10 plus 40 or 50 seconds.

C. Kettle High Limit Temperature Control

a. The kettle high temperature control system is completely redundant system to the digital temperature control. The High limit control controls a second relay which is wired in series with the relay controlled by the digital temperature control.

b. Cretors "CE" marked machines have been supplied with high limits since 1990 to comply with the European Directives these high limits were not resetting. Once they trip, they must be replaced. Beginning July 2008, the CE marked machines began using the same high limit used in non CE marked machines (cpn14593). These high limits will reset when the temperature falls below their set point. In order to comply with the CE directive a latching relay (cpn 14942) has been added to the control circuit. If the high limit opens the relay will keep the kettle power off until it is reset. The relay is reset by turning off the power to the machine. This is done by turning the rotary switch off and back on or powering the unit off at the main breaker.

CAUTION: If high limit continually trips, check for a problem with the kettle temperature control, temperature setting of the temperature control or the timer setting of the sweet/salt timer

c. Beginning in May of 2006 UL requires that all cooking machines have auto-resetting thermostats. Cretors and Company has started implementing auto-resetting high limits into our repair kettle assemblies as well. Again, the end customer/user will not see any difference in the operation of their machine but there is now an added level of safety so that the kettle temperature will not be able to exceed a safe level, even if the normal operating thermostat or temperature controller is adjusted to an unsafe level. This high limit is preset and is NOT to be adjusted for any reason.

Tampering with the high limit will void all warrantees. New wiring diagrams will be sent out with the new kettle assemblies for reference.

D. 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. Remove the retainer patch from around the dump shaft.

3. Remove the hex screws on the bottom of the retainer and remove the retainer.

4. Disconnect the lead wires from the mica terminal plate. If digital, also remove thermocouple wires.

5. Loosen the two square-head setscrews that hold the kettle support plate(s) to the support shaft.

6. Slide the kettle off of the support shaft.



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

7. If wires must be replaced, be sure to use nickel wire supplied by Cretors. Conventional copper or "stove" wire will have a limited life.

8. When removing nuts and spacers from the threaded studs on the bottom of the pan, do not wipe off the silver lubricant. Without the 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.

E. Kettle Installation

1. When re-assembling the kettle, be sure all nuts and bolts are tight. Check to make sure that all electrical connections are secure. A loose connection can heat up and burn off the wires.

2. Check the kettle support bar to be sure that it is level.

3. Locate the kettle so that the drive shaft lines up with the blade center, and tighten the bolts on the kettle support plate/(s) that hold the kettle in place.

4. Turn on the agitator and dump the kettle. If the drive shaft does not engage and dis-engages freely, readjust the kettle. Under normal circumstances if the kettle was aligned before it was removed, the only adjustment needed is to slide it in or out along the support shaft until the drive shaft is aligned with the blade center. In severe cases it may be necessary to make further adjustments, see "Kettle Alignment" section for instructions.

5. When the drive shaft engages and disengages freely, securely tighten the other bolts that are holding the pan.

6. Replace the retainer and the retainer patch.

F. Kettle Alignment

1. Begin by checking to see if the kettle support bar is level. With the kettle removed, apply slight downward pressure on the dump handle to simulate the weight of the pan. Measure the distance from the top of the bar to the top of the cabinet at both the tip and at the base near the support column. The measurements should be equal to within 1/8 inch (3 mm). This dimension should be approximately 11 and 7/8 inches (30.16 cm).

2. If the bar is not level, remove the cover from the support column. Locate the kettle level nut and loosen the setscrews that hold it to the shaft. With the setscrew loose, rotate the nut to move the support bar up or down. When level, retighten the setscrews.

3. When the bar is level and properly aligned, the agitator drive shaft should be directly above it. If the bar is not under the drive shaft it can be moved to either side by rotating the entire support column. The support column is rotated by loosening the four bolts that attach it to the top of the cabinet. Re-tighten and re-check the alignment.

G. Kettle Return Spring Adjustment

The kettle counter balance return spring holds the kettle in a level position when popping corn. It allows the kettle to be emptied when the handle is pulled down. The fixed end of the spring is held by a hooked plate with four adjustment points. The tension of this spring is adjusted by sliding a small tube over the fixed end of the spring and moving it to a different adjustment point.

H. Replacing Damaged Oil Discharge Tube

If the oil discharge tube, which terminates within the kettle, becomes damaged, the tube can be replaced easily. By using a 9/16 wrench to loosen and remove the bottom piece of the coupling. Pull the damaged tube out and replace it with P/N 1089-1 tube.

Make sure the mitered end of the tube is facing the opposite direction of the stirrer blade rotation. This is so that the unpopped kernels are not forced up into the tube. Tighten up the coupling.

I. Giles Hood

The filters contained within the Giles hood need to be cleaned and replaced on a regular basis. All filters must be in good operating condition and in place for the hood and popcorn machine to function properly. Filters must be cleaned as recommended in the Giles manual to prevent damage to the filters. Please refer to the Giles manual supplied for additional service requirements for the Giles ventless hood.

VIII. TROUBLESHOOTING

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 "Digital Temperature Control Adjustment" section). Temperature is set too high (refer to the "Salt Timer Adjustment" and "Salt/Sugar One Pop Adjustment" sections).
	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.	One of the elements in a multi-element pan may have failed.	Use an ammeter to diagnose.
		Check the amperage draw of the heating elements, by using a clamp-on ammeter. 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. 3. If machine has one-pop option shut off the oil switch and press the one-pop button. 4. Place the ammeter around the lead to the popper kettle as listed. The following current draws are normal. 120/208-240V and100/200V machines-black or red 230V machines-blue or brown 400V machines-black or brown



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.

Kettle	Wire Color	120/208 Volts
48/60 oz.	red	27.8 amps
	black	27.8 amps

Kettle	Wire Color	120/240 Volts
48/60 oz.	Red	24.1 amps
	black	24.1 amps

Kettle	Wire Color	230 Volts
48/60 oz.	brown	24.1 amps
	Blue	24.1 amps

Kettle	Wire Color	400 Volts
48/60 oz.	Brown	13.2 amps
	black	11.9 amps

PROBLEM	POSSIBLE CAUSE	ACTION
A low reading may indicate 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: 1. The element has burned out. 2. 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. 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 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	Ohm readings should match chart listed below. If Ohm readings are not close, 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.

48/60 oz. - **240V** elements	1010-C	750 Watt – 76.8 Ω
	1808-C	1250 Watt – 46.1 Ω
	1447-C	1800 Watt – 32.0 Ω
	1043-C	2000 Watt – 28.8 Ω
		9.9 Ω (total)
48/60 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	2000 Watt - 21.6 Ω
		7.5 Ω

Replace failed heat elements with identical units available from your local dealer or from Cretors. Reassemble and reinstall 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.



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

PROBLEM	POSSIBLE CAUSE	ACTION
Kettle will not heat	The motor, light or any of the other components do not work. Other components work but kettle switch light is not on – see item 5.	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.) 4. Is ansul system activated (if supplied) 5. Make sure the exhaust switch is ON for ventless hood machines
	If kettle switch is on (lit) but no heat – the problem is in the machine.	Check the relay. The Diplomat digital temperature control uses a relay/contactor to control the power to the popper pan heat elements. To check the relay/contactor, perform the following operations: 1. To gain access to the relay/contactor, remove the top of the machine by removing the screws on the top. 2. Using a voltmeter, check the power to the relay/contactor coil, that are the small terminals in the center. 3. With the popper switch on, at room temperature, the digital temperature control should be calling for heat and providing power to the relay. If the coil reading is not 120 volts, (230 volts on 230V and 400V, 50Hz machines) the problem is in the digital temperature control. 4. If the coil reading is 120 volts, (230 volts on 230V and 400V machines) check the voltage between the output terminal with wire #1 and the output terminal with wire #3 from the kettle support. If this does not have a reading of 208 or 240 volts, the relay is not functioning and needs to be replaced.
	If machine has the one-pop option.	Use the same procedure as above. Then check the one-pop circuit. 1. With the power OFF. Check the one-pop switch for continuity by pressing and holding it down. Remove wires (mark wires for proper re-installation) from switch and press and hold. Using a multimeter, check for continuity from top to bottom of switch. If no continuity, replace switch. 2. Check the input (COM) and output (NO), on timer/relay.

PROBLEM	POSSIBLE CAUSE	ACTION
Digital Temperature Control display shows EO	Thermocouple has bad connections.	Check all connections.
	Thermocouple is bad. Should read 3-5 ohms if good.	Replace thermocouple.
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.
	Does the agitator driveshaft engage the blade center and turn it?	See section Kettle Alignment for instructions.
	Does the kettle sag when corn is added to the kettle causing the agitator to disengage?	See section Return Spring 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 Thermostat Adjustment Section.)
Problem in the Cornditioner.		
The Diplomat series of machines has four cabinet sizes: 36", 48", 60" and 72". The heat system in the 36" cabinet consists of a blower, heating element, and two thermostats mounted in the base of the cabinet. The upper thermostat is a manual reset high limit with a red button reset. The lower thermostat controls the temperature of the air supplied by the cornditioner. The cornditioner circulates hot air through the popper case to keep popped corn fresh and crisp.		
With the power connected, turn the cornditioner on.		
The switch light is on and no air is being delivered.	Check the high limit thermostat.	If tripped (red button out) reset by pressing red button.
	Check connections to blower.	Replace blower.
The switch light is on and cool air is being supplied.	Check element.	Replace element.
	Check thermostat.	Replace thermostat.
The high limit trip goes off repeatedly.	Cornditioner screen blocked.	Clear passageway.
	Blower is not operating properly.	Replace blower.
	Bottom thermostat is stuck in on position.	Replace thermostat.
The Cornditioner heat system, in the 48", 60" and 72" cabinets, is the same and consists of a blower, heating element, and two thermostats mounted in a removable box. The upper thermostat is a manual reset high limit with a red button reset. The lower thermostat controls the temperature of the air supplied by the cornditioner. The cornditioner circulates hot air through the popper case to keep popped corn fresh and crisp. An indicator light on the cornditioner switch indicates when there is power to the circuit.		
With the power connected, turn the cornditioner on.		

PROBLEM	POSSIBLE CAUSE	ACTION
The switch light is on and no air is being delivered.	Check connections to the blower.	Replace blower.
The switch light is on and cooler air is being supplied.	Check element.	Replace element.
	Check thermostat. The maximum air output temperature is approximately 140° F or (60° C). The thermostat is installed as a safety device and is not adjustable.	Replace thermostat.
The indicator switch is on and air from blower is too hot.	Cornditioner screen is blocked.	Clear passageway.
	Blower is not operating properly.	Replace blower.
	Thermostat is stuck in on position.	Replace thermostat.
Exhaust odors.		Wash grease filter.
		Replace charcoal media in the charcoal filter box.
Pump will not heat.	Pump switch is on.	Check pump switch. Remove wires from switch (mark wires for proper re-installation). Using a multimeter, check for continuity from top to bottom of switch. If no continuity, replace switch.
Pump will not pump oil.	Check One Pop Switch.	Remove wires (mark wires for proper re-installation) from switch and press and hold. Using a multimeter, check for continuity from top to bottom of switch. If no continuity, replace switch.
	Check timer.	Check the input and output power to the pump timer, which is located in the pump or for Salt/Sugar Option: Diplomat timer is located under the wire cover. Diplomat 4', 5' or 6' machines, timers are on top.
	Check motor.	Check power at motor connection. If there is power at motor connection, but motor does not work, replace motor.

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

Children should be supervised to ensure that they do not play with the appliance.

If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.

CAUTION: In order to avoid a hazard due to inadvertent resetting of the thermal cutout, this appliance must not be supplied through an external switching device, such as a timer, or connected to a circuit that is regularly switched on and off by the utility.

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.

Cretors
We invented the popcorn machine
THEN JUST KEPT GOING!

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