



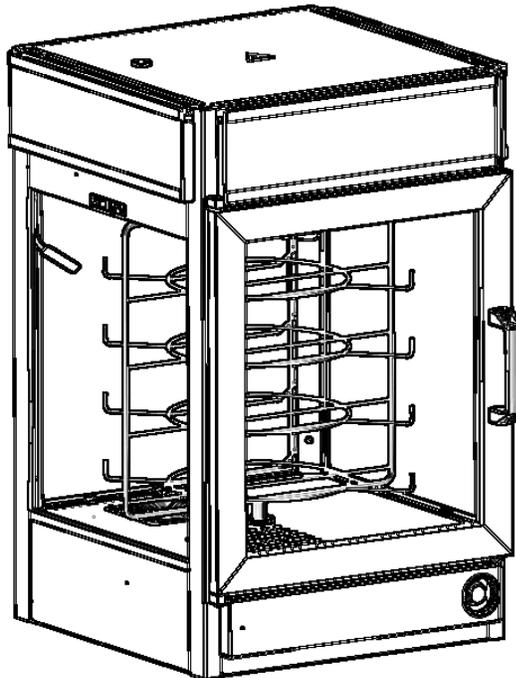
We invented the popcorn machine  
THEN JUST KEPT GOING!

---

176 MITTEL DRIVE, WOOD DALE, IL 60191

---

# Humidified Food Warmer Operation & Service Manual 120V/60Hz



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

**TABLE OF CONTENTS**

I. Safety Alert Symbol.....3

II. Safety First..... 3

III. Introduction.....4

IV. Product Specifications.....4

V. Identify Main Components.....5

VI. Installation Instructions.....8

VII. Operating Instructions.....9

VIII. Set-Up Procedure for Controllers.....11

IX. Troubleshooting.....15

X. Spare/Replacement Parts.....18

XI. Wiring Schematic.....20

XII. Sanitation Instructions.....21

---

## 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

This manual is filled with time-saving and money-saving information regarding your Cretors convection pizza/food warmer 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.

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.



The information in this manual is essential for the safe installation and maintenance of your Cretors pizza/food warmer 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

The Pizza/Food Convection Warmer uses controlled heat and humidity to warm, hold and display cooked food products. The unit is designed to hold four 15" (380 mm) diameter pizzas (using a pizza tray) or other food products for several hours while keeping it fresh.

The unit is designed with separate independent controls for both heat and relative humidity. LED lighting illuminates the storage cabinet. The pizza holding rack is motorized to maintain even heat distribution and the rotation stops automatically when the front door is opened.

There is an indicator light which signals the operator when a water refill is required. Once refilled, a push button is activated to restart the timed cycle.

All machines are tested, and are mechanically and electrically sound when they leave the factory.

### IV. PRODUCT SPECIFICATIONS

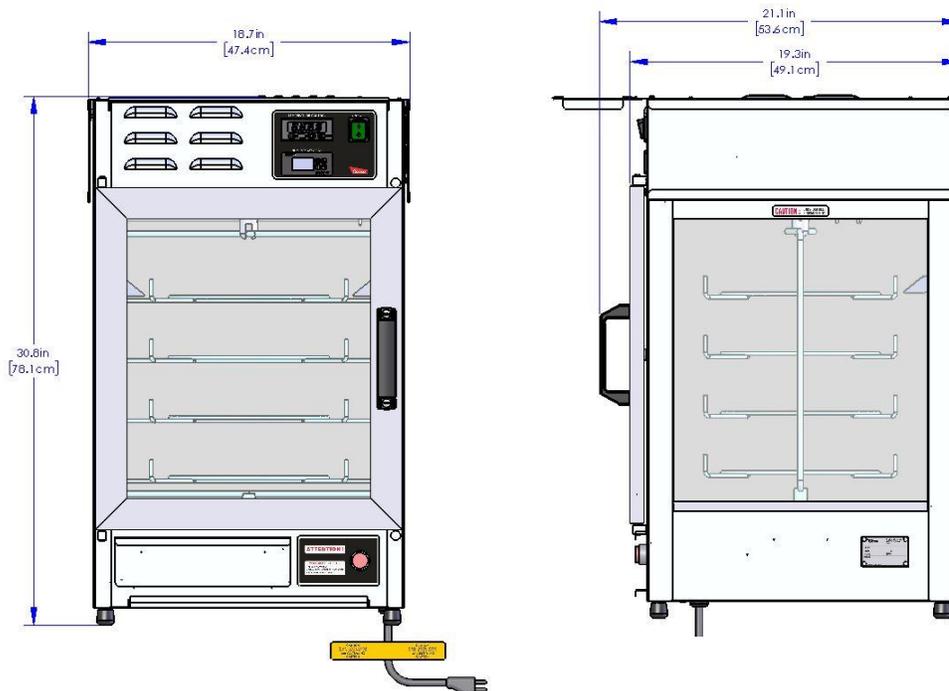
HUMIDIFIED FOOD WARMER: MODEL: HFW

ELECTRICAL SPECIFICATIONS:

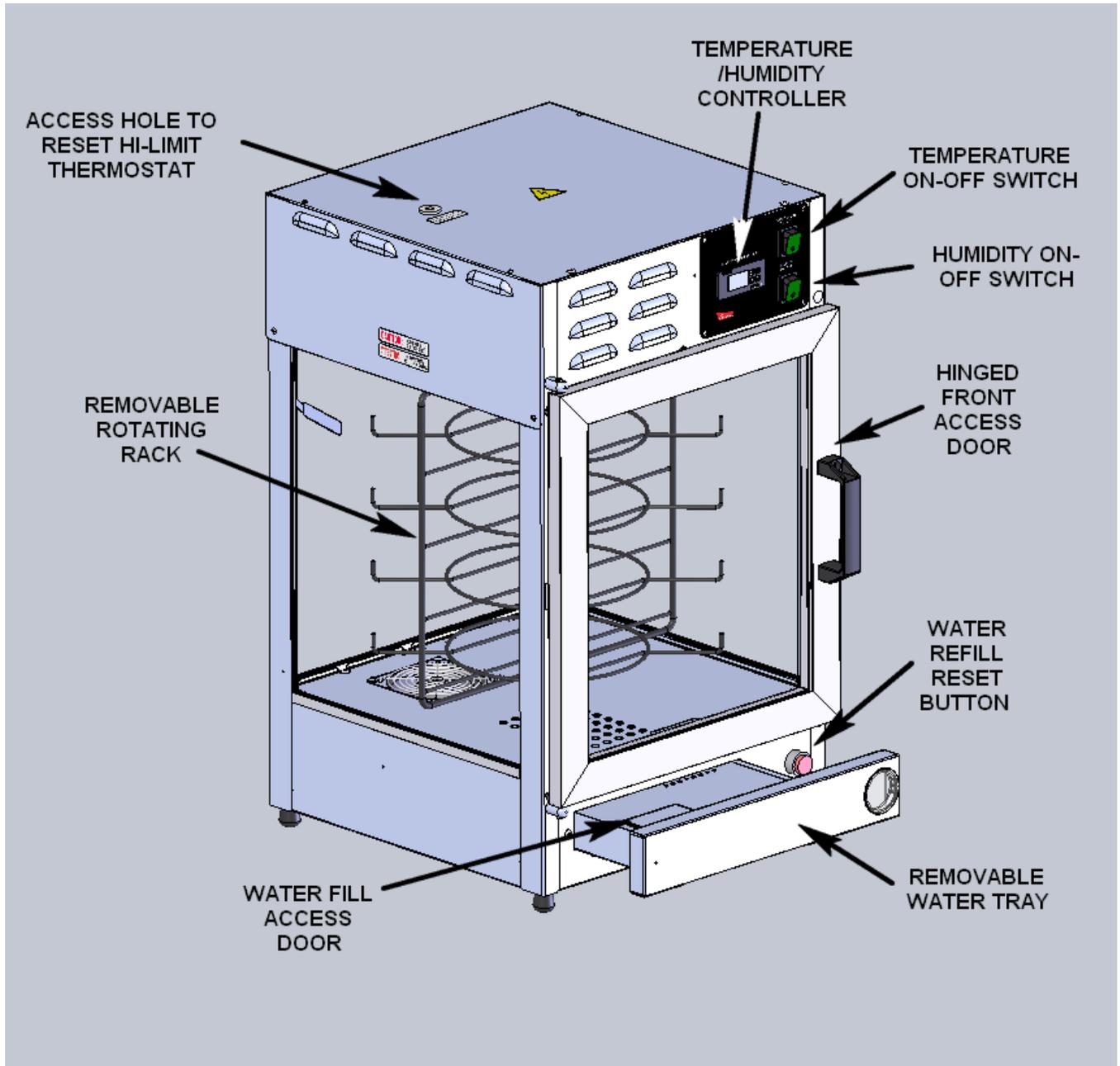
100-120 Volt, Single Phase, 60 Cycle 1780 Watts

MECHANICAL SPECIFICATIONS:

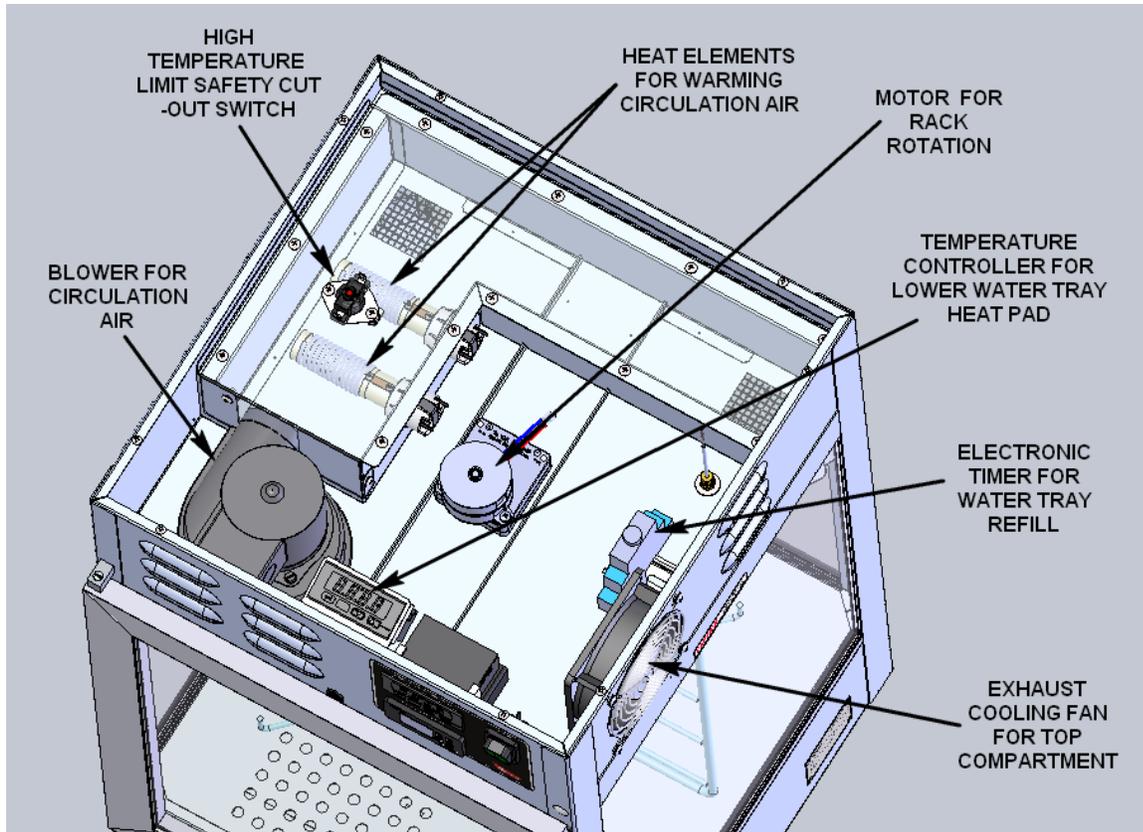
Net Weight: 87 lbs (40 kgs)



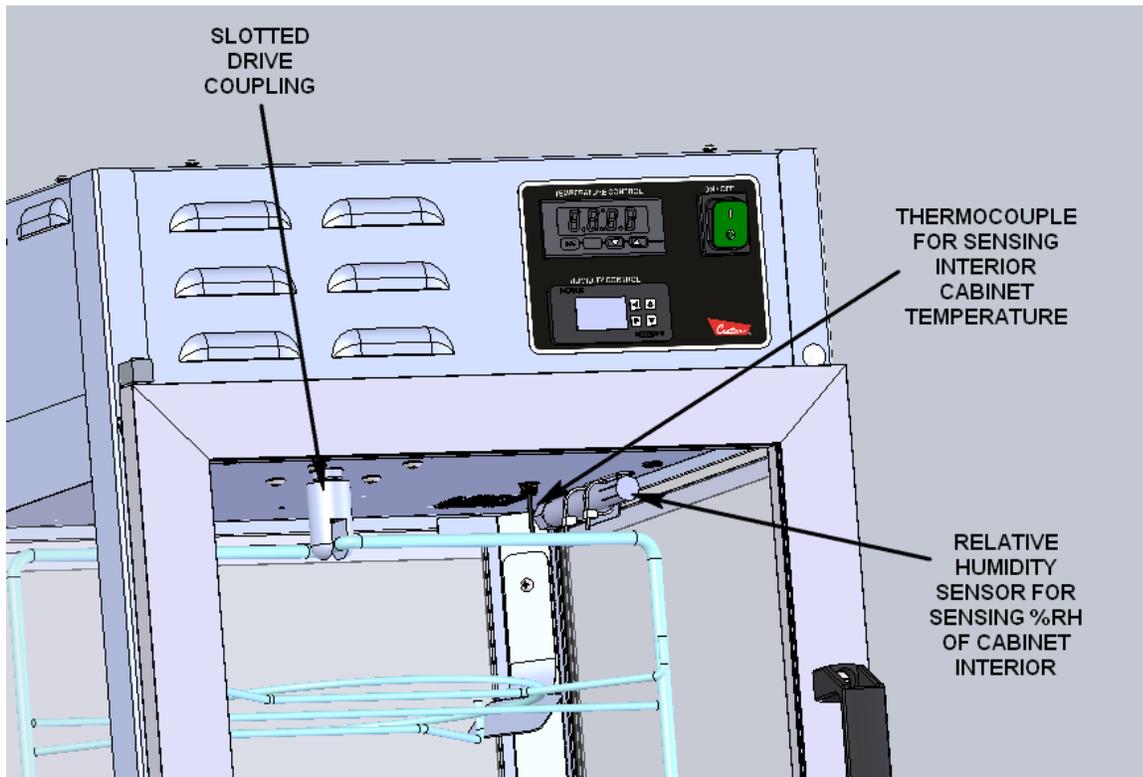
V. IDENTIFY MAIN COMPONENTS



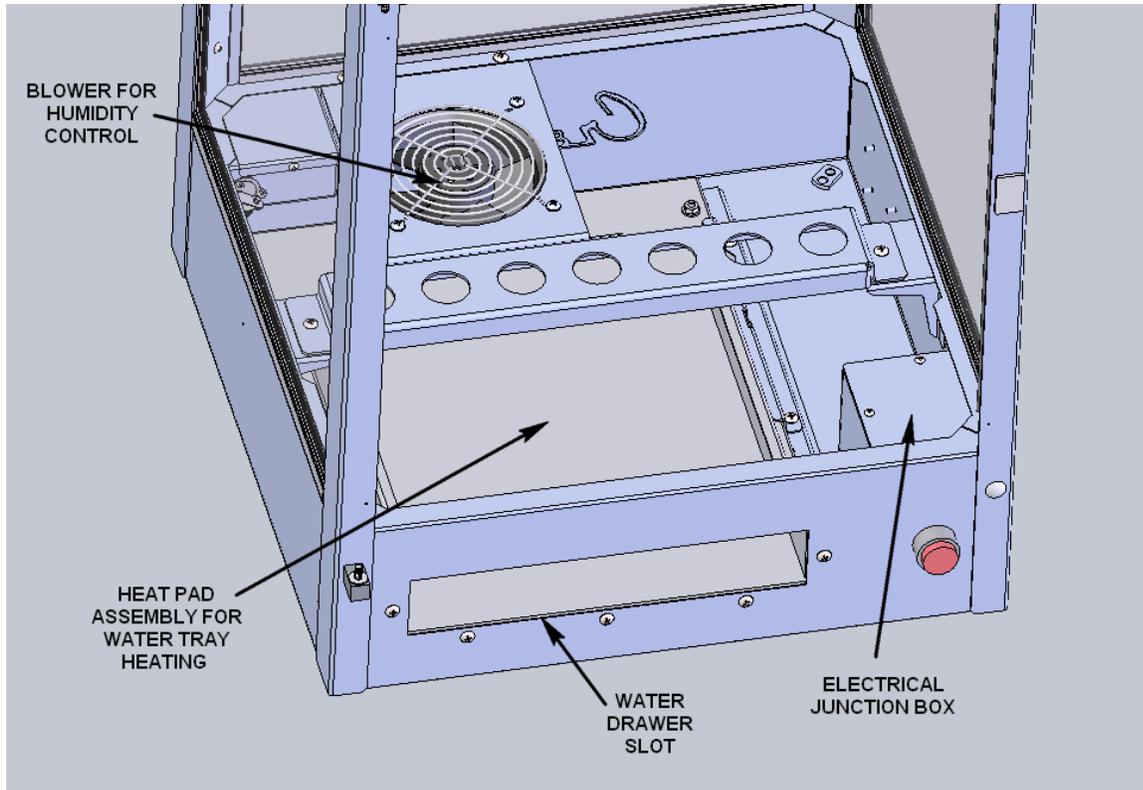
MAIN COMPONENTS 1



MAIN COMPONENTS 2



MAIN COMPONENTS 3



MAIN COMPONENTS 4

---

## VI. INSTALLATION INSTRUCTIONS

### 1. Location

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

### 2. Power Supply

Check the nameplate to determine the required power supply.



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



Make certain the Rocker Switch on the warmer is in the 'OFF' position when plugging into power source. Failure to do so may result in personal injury or death and may damage your warmer.

**VII OPERATING INSTRUCTIONS**



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



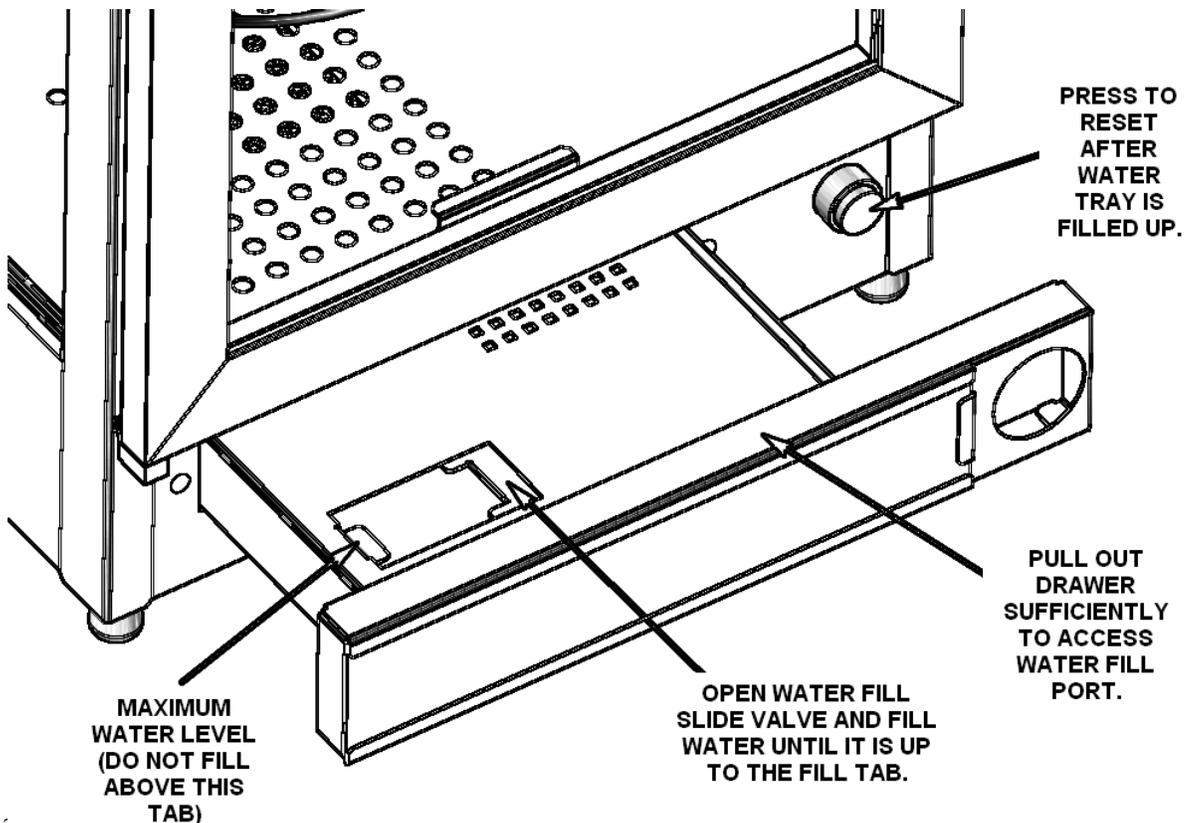
Operate your warmer only if it is in sanitary condition (SANITATION INSTRUCTIONS). Failure to do so may result in illness to your customers.

1. Turn the control power rocker switch "on" to light cabinet and turn on the motorized rack and the heating and humidifying systems.
2. Make sure the water tray (drawer) is filled with water.
  - a. Water tray filling instructions:
  - b. Pull out the water drawer (1/4 of the way out) and slide open the fill access slide valve. Using clean potable water, fill the drawer with 4 quarts. Do not exceed high level fill tab shown in diagram.

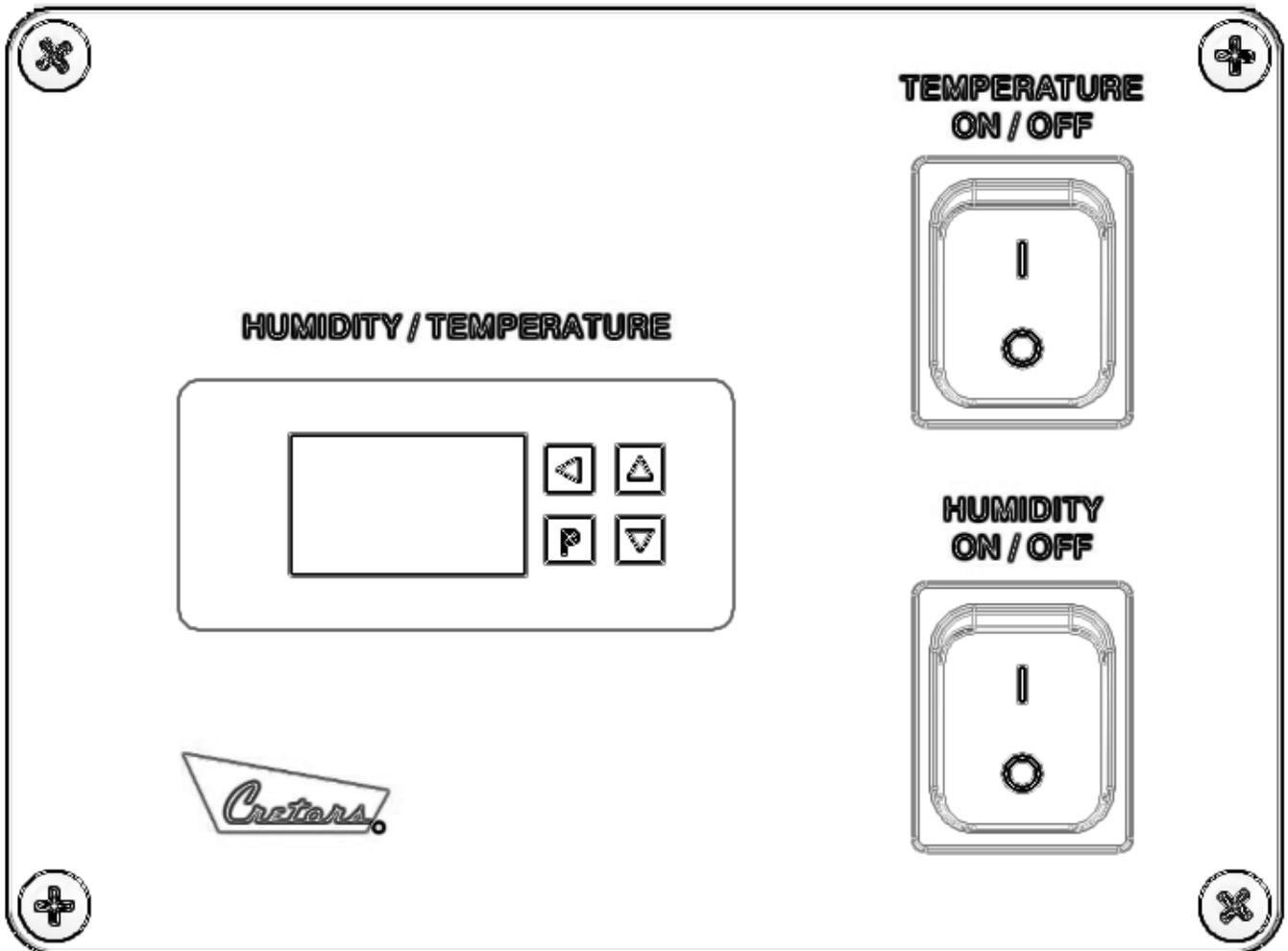


**CAUTION: WHEN PULLING THE WATER DRAWER OUT BE CAREFUL NOT TO PULL ALL THE WAY OUT AS THE TRAY CAN BE FILLED WITH POTENTIALLY SCALDING WATER AT 200°F (93°C) AND CAUSE SEVERE BURNS.**

- c. Press the reset button which will start a 6 hour timer which is approximately when the drawer will need to be refilled.



3. Allow the warmer to preheat before placing food products in it. Allow 30 to 45 minutes from a cold start.
4. Place Pizza/Food Products on a tray then place the tray on the rack. **Do not place food products directly on the rack.**
5. The controller settings have been factory pre-set and are locked out. A qualified service technician must be contacted to make any adjustments.



**VIII. SET-UP PROCEDURES FOR CONTROLLERS**

**#1 TEMPERATURE CONTROLLER (WATER TRAY HEAT PAD TEMPERATURE) CONTROLLER IS LOCATED IN THE UPPER HOUSING.**

*NOTE: REMOVAL OF COVER IS REQUIRED TO GAIN ACCESS.*

**Getting into Program Mode:**

- 1) **Press and hold** the **▲ and ▼ arrows** simultaneously for a few seconds.
- 2) **PA** will appear on the screen. Press the **SET** button instantly and **0** will come up.
- 3) Press the **▲ or ▼ arrows** until the display reads **-19**
- 4) Quickly press the **SET** button and then press the **▲ and ▼ arrows** simultaneously.
- 5) You are now in the Program Mode:

**To Modify Settings:**

- 1<sup>st</sup>. Press The **SET** Button.
- 2<sup>nd</sup>. Make the change by using the **▲ and ▼ arrows**
- 3<sup>rd</sup>. Wait 15 seconds or press set and use the **▲ and ▼ arrows** to move to the next setting
- 4<sup>th</sup>. When finished wait 15 seconds or press the **▲ and ▼ arrows** for 5 seconds to return to main menu.
- 5<sup>th</sup>. Press **SET** then the **▲ arrow** until the set point is reached

TEMPERATURE CONTROLLER SETTINGS (WATER TRAY HEAT PAD °F)	
PARAMETER	SETTING
CA1	-8
P0	0
P1	1
P2	1
P5	0
r0	8
r1	1 (°F)
r2	225 (°F)
r3	0
r5	1
Set Point	200 (°F)

**#2 CABINET TEMPERATURE & RELATIVE HUMIDITY CONTROLLER**

**Getting into Program Mode:**

- 1) For set-point access, press the **P** button for 1 second.
- 2) For programming mode, press the **P** button for 2 seconds until the "rHt" parameter is shown.

**To Modify Settings:**

1<sup>st</sup>. When in programming mode, press the **P** Button to scroll through menu parameters.

2<sup>nd</sup>. Using the chart below, make the changes using the **▲ and ▼ arrows**

3<sup>rd</sup>. When finished scroll to the last parameter and the controller will return to it's monitoring display mode.

TEMPERATURE & RELATIVE HUMIDITY CONTROLLER SETTINGS			
PARAMETER	SETTING	PARAMETER	SETTING
SP1 (Temperature Set Point)	150	SP2 (% RH Set Point)	18
SP3 (Not Used)	0	HY 1	0.1
rHt	5	HY 2	0.1
Unt	1	HY 3	0.1
OFH	0	dL 1	0
OFt	-2.0	dL 2	0
SL 1	0.0	dL 3	0
SH 1	185.0	1t 1	0
SL 2	0	2t 1	0
SH 2	100	3t 1	0
SL 3	0	1t 2	0
SH 3	0	2t 2	0
Ac 1	0	3t 2	0
Ac 2	0		
Ac3	0		
Cnt	4		

**IX. TROUBLESHOOTING**



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.

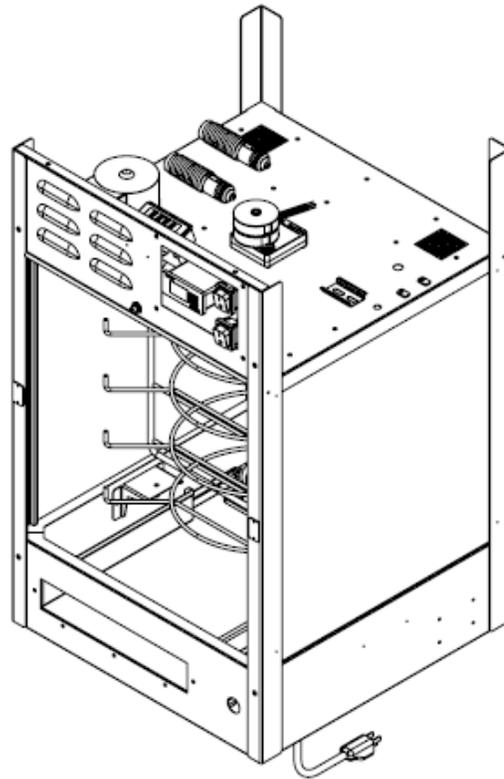
PROBLEM	POSSIBLE CAUSE	ACTION
Warmer will not power up.	Check Incoming Power Supply and Wiring.	Is the warmer plugged in?
		Is the receptacle live?
		Is the warmer plugged into the proper voltage (120 VAC)? <ul style="list-style-type: none"> <li>• Measure with voltmeter and compare to specification on machine.</li> </ul>
		Is there power to the rocker switch? <ul style="list-style-type: none"> <li>• If yes, check for loose wiring. Replace rocker switch if cycling of switch does not power up the warmer.</li> </ul>
Warmer powers up but light(s) do not come on.	Check 24 Volt Power Supply and Wiring.	Is there power (120 VAC) to the power supply input? <ul style="list-style-type: none"> <li>• If yes, check move on to the next action.</li> <li>• If no, check for loose wiring between rocker switch and power supply.</li> </ul>
		Is there power (24 DC VAC) to the power supply output? <ul style="list-style-type: none"> <li>• If yes, move on to the next action.</li> <li>• If no, replace power supply.</li> </ul>
		Is there power to each LED light? <ul style="list-style-type: none"> <li>• If yes, replace the LED light.</li> <li>• If no, check for loose wiring between power supply outlet and LED light(s).</li> </ul>
Warmer powers up but motorized rack does not rotate.	Check Motor, Door Switch and Wiring.	With the front door closed, is there power (120 VAC) to the motor? <ul style="list-style-type: none"> <li>• If yes, replace the motor.</li> <li>• If no, move on to the next action.</li> </ul>
		Is there voltage to the “common” terminal of the door switch? <ul style="list-style-type: none"> <li>• If yes, continue.                             <ul style="list-style-type: none"> <li>○ With the door closed is there voltage (120 VAC) to the “NO” terminal of the door switch?                                     <ul style="list-style-type: none"> <li>▪ If no, replace door switch.</li> </ul> </li> </ul> </li> <li>• If no, check for loose wiring between On-Off rocker switch and door switch.</li> </ul>
Warmer powers up but air circulation blower does not start.	Check Circulation Blower and Wiring.	Is there power (120 VAC) to the blower motor? <ul style="list-style-type: none"> <li>• If yes, replace the motor.</li> <li>• If no, check for loose wiring between On-Off rocker switch and the blower motor.</li> </ul>
Warmer powers up but circulation air temperature is cold or cannot reach desired	Bad Heating Element.	Unplug machine. Using a multi-meter, check the resistance of each of the two heat elements. Remove the wire from one terminal. The meter should read approximately 29 Ω. <ul style="list-style-type: none"> <li>• If resistant readings are between 27 Ω - 31 Ω for each</li> </ul>

PROBLEM	POSSIBLE CAUSE	ACTION
set-point.		element, heaters are acceptable move to next action. <ul style="list-style-type: none"> <li>• If resistant readings are outside of the acceptable range, replace defective heater.</li> </ul>
	Digital temperature controller has incorrect set point or is malfunctioning.	Plug in machine. <ul style="list-style-type: none"> <li>• Make sure the set point is correct (175°F).                             <ul style="list-style-type: none"> <li>○ If yes move on.</li> <li>○ If no, enter the correct set-point.</li> </ul> </li> <li>• Make sure that the circulation air temperature controller output light is lit.                             <ul style="list-style-type: none"> <li>○ If yes, move on.</li> <li>○ If no, check all programmed setting within controller (see set-up section)                                     <ul style="list-style-type: none"> <li>▪ If programming is ok and output light does not come on, replace controller.</li> </ul> </li> </ul> </li> </ul>
	High limit is tripped or stuck open.	Unplug machine. Using a multi-meter, check the continuity of each high limit safety switch. Remove the wire from one terminal. <ul style="list-style-type: none"> <li>• The meter should show continuity. If this is the case, move on to the next action.</li> <li>• If there is no continuity, replace the high limit safety switch.</li> </ul>
	Check Controller Output Wiring	With temperature controller output light on, check voltage at each of the two heating elements. <ul style="list-style-type: none"> <li>• If reading is 120VAC go back to “Bad Heating Element” section.</li> <li>• If reading is less than 110 VAC check for loose wiring.</li> </ul>
Warmer powers up but circulation air temperature does not displace on controller.	Check Thermocouple and Wiring	Unplug machine. Using a multi-meter, check the continuity of the thermocouple. Remove the wire from one terminal on the controller. The meter should show some resistance. <ul style="list-style-type: none"> <li>• If there is continuity with a small resistance, thermocouple is most likely good. Check for loose wiring or re-strip thermocouple ends and reseal to temperature controller.</li> <li>• If there is no continuity, replace thermocouple.</li> </ul>
Warmer powers up but water tray does not heat-up to produce humidity.	Bad Heating Pad.	Unplug machine. Using a multi-meter, check the resistance of each of the heating pad. Remove the wire from one terminal. The meter should read approximately 20 Ω. <ul style="list-style-type: none"> <li>• If resistant readings are between 17 Ω - 21 Ω heat pad is acceptable. Move to next action.</li> </ul> If resistant readings are outside of the acceptable range, replace defective heat pad cartridge.

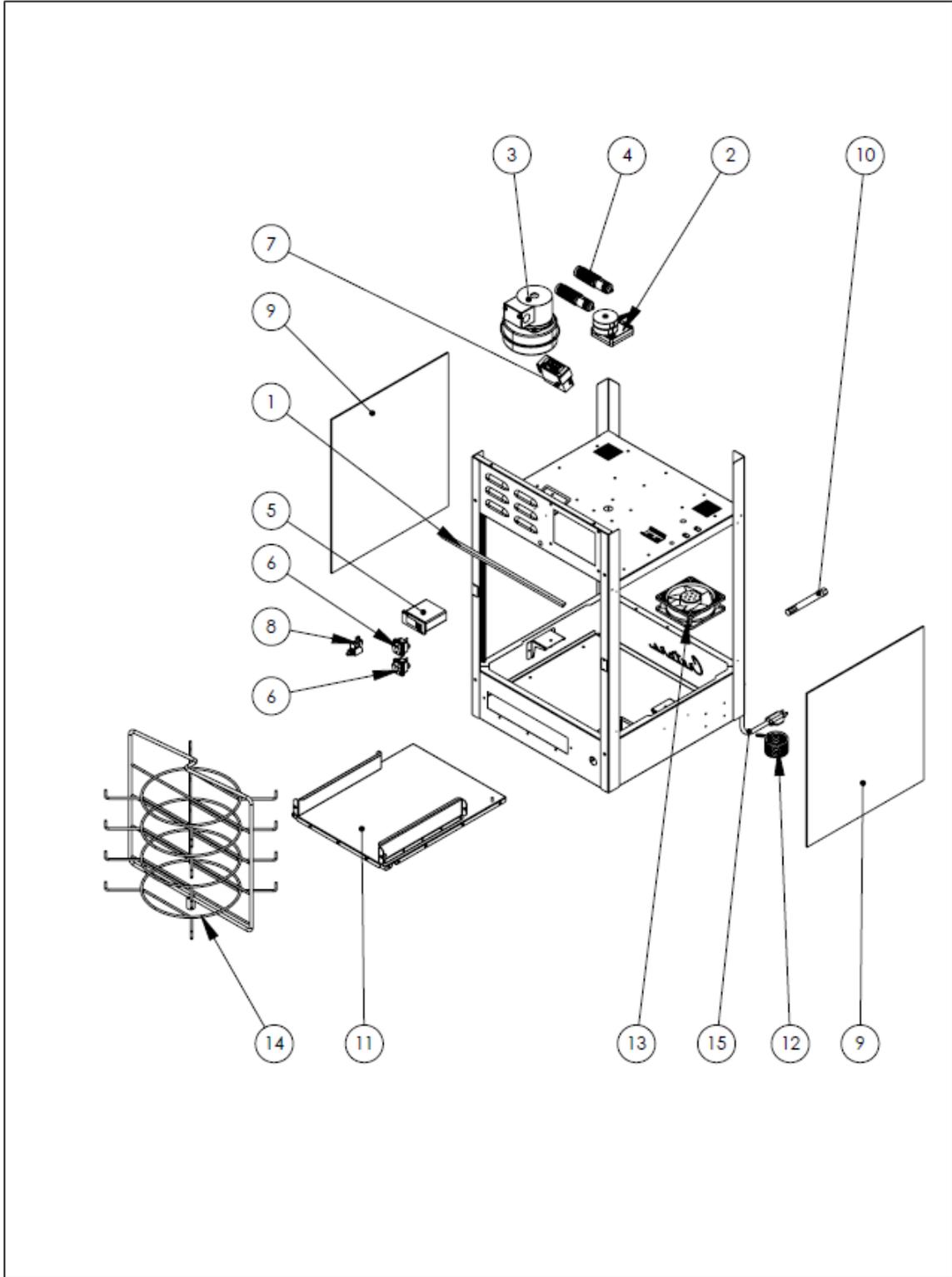
PROBLEM	POSSIBLE CAUSE	ACTION
	Digital temperature controller has incorrect set point or is malfunctioning.	Plug in machine. <ul style="list-style-type: none"> <li>• Make sure the set point is correct (200°F).                             <ul style="list-style-type: none"> <li>○ If yes move on.</li> <li>○ If no, enter the correct set-point.</li> </ul> </li> <li>• Make sure that the heat pad temperature controller output light is lit.                             <ul style="list-style-type: none"> <li>○ If yes, move on.</li> <li>○ If no, check all programmed setting within controller (see set-up section)                                     <ul style="list-style-type: none"> <li>▪ If programming is ok and output light does not come on, replace controller.</li> </ul> </li> </ul> </li> </ul>
	Check Controller Output Wiring	With temperature controller output light on, check voltage at the heat pad. <ul style="list-style-type: none"> <li>• If reading is 120VAC go back to “Bad Heating Pad” section.</li> </ul> If reading is less than 110 VAC check for loose wiring.
Warmer powers up but water tray temperature does not displace on controller.	Check Thermocouple and Wiring	Unplug machine. Using a multi-meter, check the continuity of the thermocouple. Remove the wire from one terminal on the controller. The meter should show some resistance. <ul style="list-style-type: none"> <li>• If there is continuity with a small resistance, thermocouple is most likely good. Check for loose wiring or re-strip thermocouple ends and reseal to temperature controller.</li> </ul> If there is no continuity, replace the heat pad cartridge.
Warmer powers up but Cabinet Air Humidity % RH cannot reach desired set-point.	Check Humidity Controller and Wiring.	Plug in machine. <ul style="list-style-type: none"> <li>• Make sure the set point is correct (21 %RH).                             <ul style="list-style-type: none"> <li>○ If yes move on.</li> <li>○ If no, enter the correct set-point.</li> </ul> </li> <li>• Make sure that the Humidity controller output light is lit.                             <ul style="list-style-type: none"> <li>○ If yes, move on.</li> <li>○ If no, check all programmed setting within controller (see set-up section)</li> </ul> </li> </ul> If programming is ok and output light does not come on, replace controller.
	Check Humidity Axial Blower and Wiring.	With humidity controller output light on, check voltage at the axial blower. <ul style="list-style-type: none"> <li>• If reading is 120VAC replace axial blower.</li> <li>• If the voltage is less than 110 VAC or zero check for loose wiring.</li> </ul>
Warmer powers up but Humidity value does not displace on controller.	Check %RH Sensor and Wiring	Unplug machine. Check for loose wiring or re-strip all 4 wires from humidity sensor and reseal to humidity controller. If there is still no displayed value, replace %RH sensor.

**X. SPARE/REPLACEMENT PARTS**

BILL OF MATERIALS			
ITEM #	QTY.	P/N	DESCRIPTION
1	1	21865	GASKET, FRONT CEILING, PIZZA WARMER
2	1	16068-TH	MOTOR, 120V, W/ TAPPED HOLE
3	1	1460	BLOWER, 1/125HP, 3030RPM, 115V/50/60HZ
4	2	2047	HEAT ELEMENT, 500W, 120V, 28.8 OHMS
5	1	21034	CONTROLLER, TEMPERATURE AND HUMIDITY
6	2	5130	SWITCH, LIGHTED, 230V
7	1	14585	TEMPERATURE CONTROLLER, DIGITAL, 120V
8	1	10662	SWITCH, PUSH BUTTON, 16A 125/250VAC
9	3	21584	GLASS, PIZZA WARMER, NARROW
10	1	21035	SENSOR, HUMIDITY AND TEMPERATURE
11	1	21571	HEAT PAD & STIFFENER ASSY, PIZZA WARMER
12	1	14604	THERMOCOUPLE, RING TYPE
13	1	16996-A	BLOWER, AXIAL, 120V
14	1	21454	RACK, 15" W/ HOOKS, PIZZA WARMER
15	1	1254	CORD, 15AMP, 14-3, NEMA 5-15P



 176 MITTEL DRIVE, WOOD DALE, IL 60191 Ph:(847)616-6900, (800)228-1885, Fax:(847)616-6970 www.cretors.com, postmaster@cretors.com		DESCRIPTION <b>PIZZA WARMER, CONVECTION, 120V/1/60Hz</b>	
DRAWN BY <b>ndarji</b>	DRAWN DATE <b>03/28/2019</b>	MATERIAL REFER INDIVIDUAL SUB-PARTS	
APPROVED BY	APPROVED DATE	DRAWING NUMBER <b>HFWAAPZX-X</b>	APPROX. WEIGHT 132.9 LBS.
		SHEET 2 OF 3	
		REVISION -	



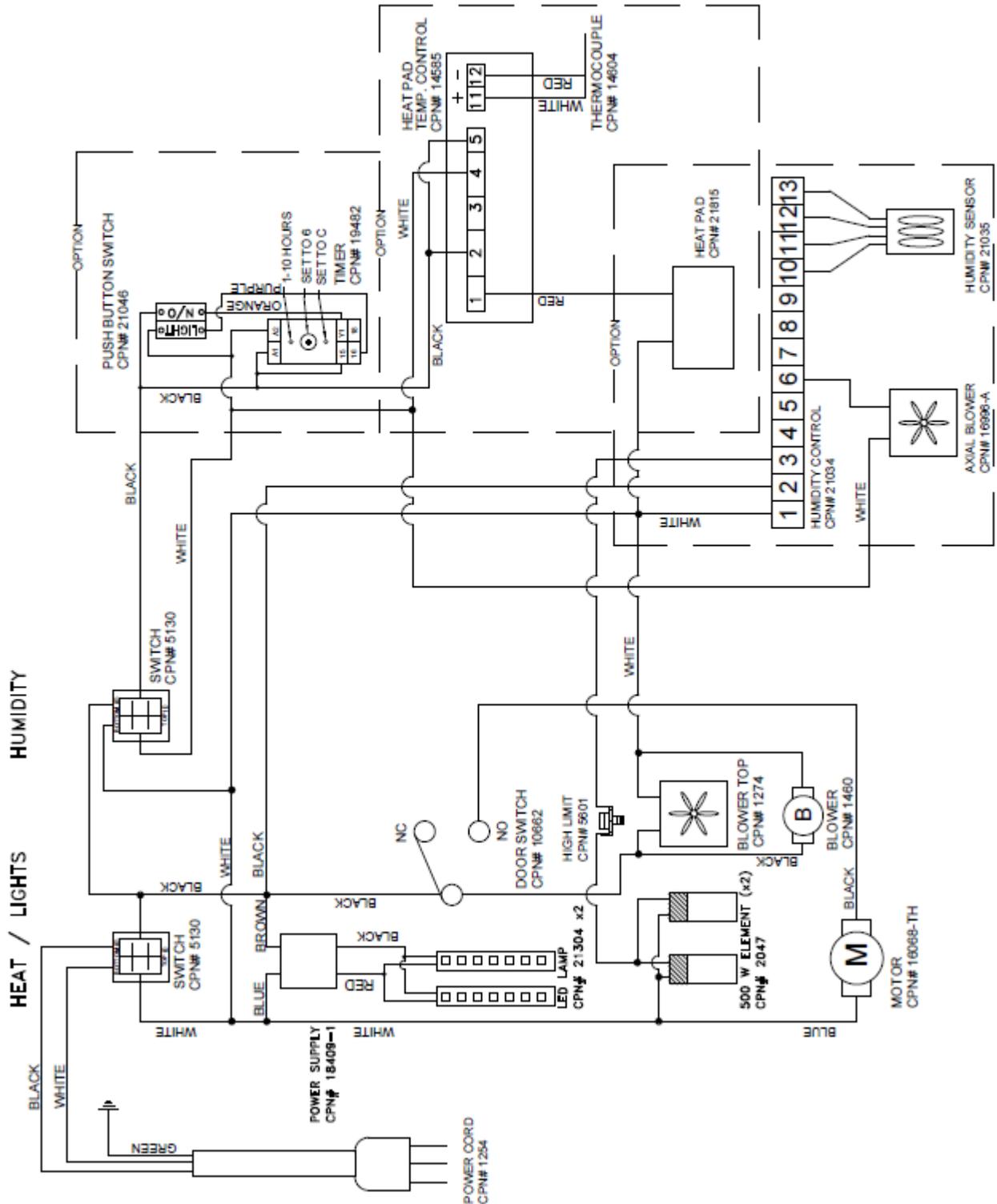
176 MITTEL DRIVE, WOOD DALE, IL 60191 Ph: (847) 616-6900, (800) 228-1885, Fax: (847) 616-6970 www.cretors.com, postmaster@cretors.com		DESCRIPTION <b>PIZZA WARMER, CONVECTION, 120V/1/60HZ</b>	
DRAWN BY <b>ndarji</b>	DRAWN DATE <b>03/28/2019</b>	MATERIAL REFER INDIVIDUAL SUB-PARTS	APPROX. WEIGHT 132.9 LBS
APPROVED BY	APPROVED DATE	DRAWING NUMBER <b>HFWAAPZX-X</b>	SHEET 3 OF 3
			REVISION -

**XI. WIRING DIAGRAM**

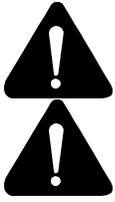
PIZZA WARMER W/ HUMIDITY & DIGITAL TEMP. CONTROL  
 WIRING DIAGRAM – 120V 60Hz  
 BEGINNING SERIAL NO. 1908

DOC: HFWar1

08/2019



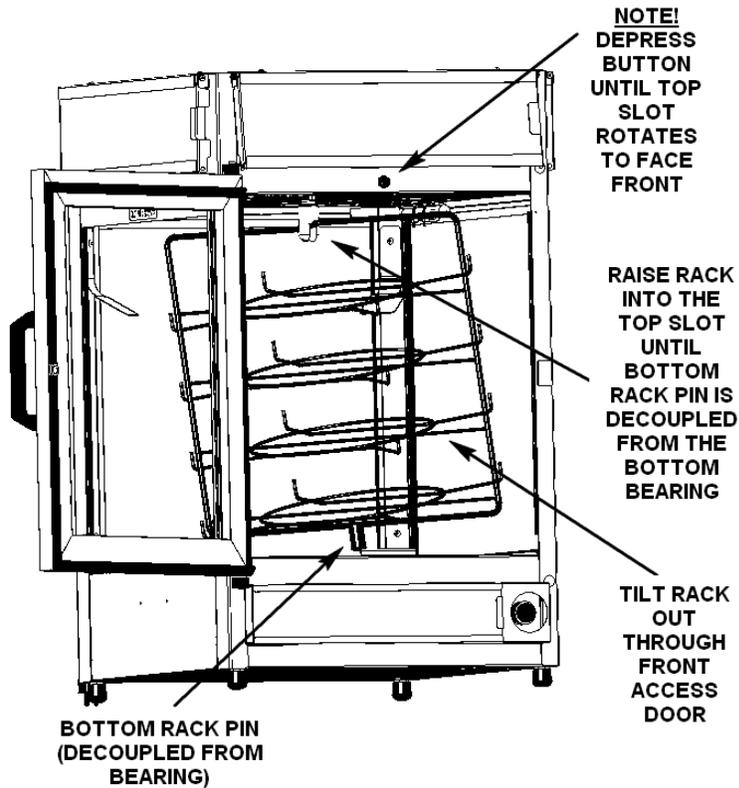
**XII. SANITATION INSTRUCTIONS**



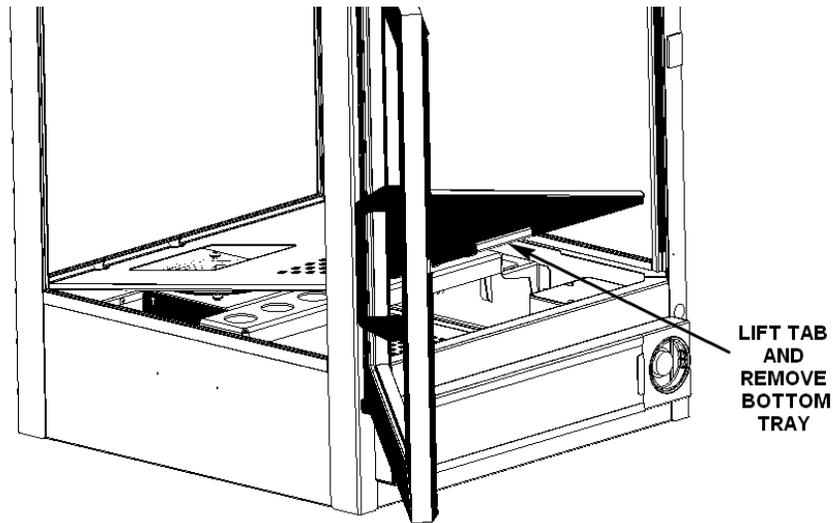
Be certain the machine is turned 'OFF' and power is unplugged before sanitizing this machine. Failure to do so could result in injury or death.

Do not clean heated surfaces until they have been given sufficient time to cool. Make sure that the water in the drawer has cooled down to room temperature before removing. Failure to do so may result in serious burns.

1. Open the front access door.
2. Depress button to rotate rake until top drive coupling slot opening faces the front. Rack will not come out unless this is correctly positioned.
3. Remove the pizza rack by gently lifting it until the bottom pin disengages from the bearing and then tilting it out through the front access door.



4. Remove bottom tray by lifting out using front tab.



5. Also remove the water tray by sliding out all the way.
6. Wash the rack, bottom tray and water tray in a sink.
7. Make sure that the bottom of the cabinet does not have an accumulation of scrap. If there is any scrap, clean out as required. Heavy or continuous operation of the machine will require more frequent cleaning.
8. The cabinet should be cleaned with any good grade glass or household cleaner suitable for stainless steel surfaces. A cleaning agent that is acceptable for food contact surfaces is recommended. Do this as required.
9. The glass can be cleaned with any good grade glass cleaner suitable for glass surfaces.

This manual is filled with time-saving and money-saving information regarding your Cretors pizza/food warmer machine. 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 snack warmer machine, 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.



**C. CRETORS AND COMPANY**  
176 MITTEL DRIVE  
WOOD DALE, IL 60191

PHONE (773) 588-1690, (800) 228-1885, FAX (847) 616-6970

WEB SITE: <http://www.cretors.com> Email: [postmaster@cretors.com](mailto:postmaster@cretors.com)

**Cretors joins the information age! Check out our links <http://www.twitter.com>  
<http://www.facebook.com/pages/Chicago-IL/C-Cretors-Co/90143449620>**