

VERTICAL CRISP 'N HOLD® FOOD HOLDING STATION
MODELS: VCNH2W3S & VCNH3W3S
OWNERS / OPERATORS MANUAL



MANUFACTURED BY:

CARTER-HOFFMANN
1551 McCormick Avenue
Mundelein, IL 60060 U.S.A.

Phone: 847-362-5500
Fax: 847-367-8981
Toll Free: 800-323-9793
Email: TechnicalService@Carter-Hoffmann.com



**READ THIS MANUAL COMPLETELY
BEFORE OPERATING THIS APPLIANCE**

IMPORTANT: DO NOT DISCARD THIS MANUAL

This manual is considered to be part of the appliance and is to be given to the OWNER of MANAGER, or to the person responsible for training operators of this appliance.

**THIS MANUAL IS TO BE UNDERSTOOD BY ALL PERSONS
USING OR INSTALLING THIS APPLIANCE.**

Contact Carter-Hoffmann if you have questions regarding installation, operation or maintenance of this equipment.

TABLE OF CONTENTS

SAFETY PRECAUTIONS	2
FEATURES & SPECIFICATIONS	3
UNPACKING, INSPECTION & FREIGHT DAMAGE	4
INSTALLATION & STARTUP	5
CONTROL PANEL LAYOUT	6
NORMAL OPERATION	6
CONTROLLER PROGRAMMING INSTRUCTIONS	7-8
FOOD HOLDING GUIDE	8
DAILY CLEANING PROCEDURES	9
WIRING DIAGRAM	10
PARTS LIST & TROUBLESHOOTING GUIDE	11
WARRANTY STATEMENT	12

SAFETY PRECAUTIONS



WARNING: ELECTRIC SHOCK HAZARD

All service requiring access to non-insulated components must be performed by qualified service personnel. Failure to heed this warning may result in severe electric shock.



CAUTION: ELECTRIC SHOCK HAZARD

Disconnect this appliance from electrical power before performing any maintenance or service.



CAUTION: BURN HAZARD

Exposed metal surfaces can be hot to the touch and may cause burns.

IMPORTANT SAFETY INSTRUCTIONS

When using electrical appliances basic safety precautions should be adhered to, including the following:

- 1) Be familiar with the appliance use, limitations and associated restrictions. Operating instructions must be read and understood by all persons using or installing this appliance.
- 2) This appliance must be grounded. Connect only to properly grounded outlet.
- 3) Use this appliance only for its intended purpose as described in the manual.
 - a. This equipment is specifically designed to hold pre-cooked food at temperature.
 - b. This equipment is intended for use in commercial establishments only.
 - c. This equipment is not designed for industrial or laboratory use.
- 4) Cleanliness of this appliance and its accessories is essential to good sanitation.
- 5) DO NOT submerge this appliance in water. This appliance is not jet stream approved. DO NOT direct water jet or steam jet at this appliance, or at any control panel or wiring. DO NOT splash or pour water on, in or over any controls, control panel or wiring. DO NOT use corrosive chemicals or vapors in this appliance.
- 6) DO NOT store this appliance outdoors. DO NOT use this product near water – for example, near a kitchen sink, in a wet basement, or near a swimming pool, and the like.
- 7) DO NOT operate this appliance if it has a damaged cord or plug, if it is not working properly, or if it has been damaged or dropped. Do not immerse cord or plug in water, keep cord away from heated surfaces, and do not let cord hang over edge of table or counter.
- 8) DO NOT cover or block any openings on the appliance.
- 9) **Only qualified service personnel should service this appliance.**

NOTE: The technical content of this manual, including any wiring diagrams, schematics, parts breakdown illustrations and/or adjustment procedures, is **intended for use by qualified technical personnel** and is subject to change without notice.

FEATURES & SPECIFICATIONS

Features & Benefits

- Crisp 'N Hold technology in a free-standing cabinet; dual fan heating system with precision circulated heat
- All stainless steel construction; under-counter height
- Pull-out wire racks for easy access to pans
- Electronic temperature control. Allows user to program temperature in one degree increments up to 200°F (93°C)
- Removable interior caddy for easy cleaning; front plenums at top and bottom provide even, directed heat circulation within the cabinet
- Sliding wire pan racks for easy access to pans
- Operates on 120 volts, 60 Hz, 1800 watts, 15.2 Amps; NEMA 5-20P



VCNH2W3S



VCNH3W3S shown with stacked CNH28XD and accessories package

Vertical Crisp 'N Hold— 1/2 Size Long Steam Table Pans

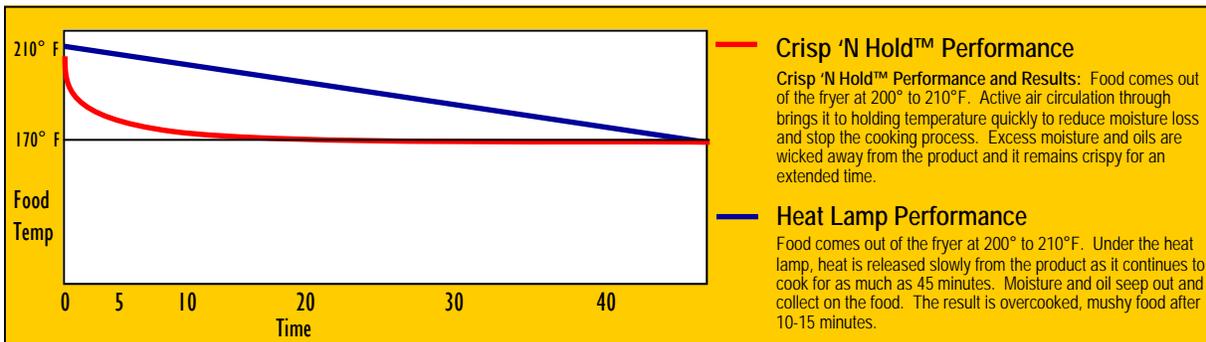
Model Number	Capacity ¹ 1/2 size long amber plastic pans	Overall Dimensions			Class 100 Ship Wt. lbs (kg)
		Height	Depth	Width	
VCNH2W3S Free-standing	6	32-7/8 (835)	30-5/8 (778)	20 (508)	172 (78)
VCNH3W3S Free-standing	9	32-7/8 (835)	30-5/8 (778)	29 (737)	219 (99)



Accommodates
1/2 size long pan



Crisp 'N Hold™ Performance vs. Heat Lamps





This appliance should be thoroughly cleaned prior to use.

See the **CLEANING INSTRUCTIONS** in this manual.

NOTE: DO NOT discard the carton or other packing materials until you have inspected the appliance for hidden damage and checked it for proper operation.

Refer to **FREIGHT DAMAGE CLAIM PROCEDURE** on bottom of this page.

UNPACKING AND INSPECTION

1. Remove the cabinet from shipping carton, ensuring that all packing materials and protective plastic has been removed from the unit.
2. Inspect all components for completeness and condition.
3. If any freight damage is present, a freight claim must be filed immediately with the shipping company.
4. **Freight damage is not covered under warranty.**
5. Check to insure all components are included: cabinet, manual, and additional accessories (if ordered).
6. Read operation instructions completely.
7. Appliance should be thoroughly cleaned before use. See **CLEANING INSTRUCTIONS** in this manual (page 9).

FREIGHT DAMAGE CLAIM PROCEDURE

NOTE: For your protection, please note that equipment in this shipment was carefully inspected and packaged by skilled personnel before leaving the factory. Upon acceptance of this shipment, the transportation company assumes full responsibility for its safe delivery.

IF SHIPMENT ARRIVES DAMAGED:

1. **VISIBLE LOSS OR DAMAGE:** Be certain that any visible loss or damage is noted on the freight bill or express receipt, and that the note of loss or damage is signed by the delivery person.
2. **FILE CLAIM FOR DAMAGE IMMEDIATELY:** Regardless of the extent of damage. **Contact your dealer immediately.**
3. **CONCEALED DAMAGE:** If damage is unnoticed until the merchandise is unpacked, notify the transportation company or carrier immediately, and then file a "CONCEALED DAMAGE" claim with them. This should be done within fifteen (15) days from the date the delivery was made to you. **Be sure to retain the container for inspection.**

Carter-Hoffmann cannot assume liability for damage or loss incurred in transit, **freight damage is not covered under warranty.** We will, however, at your request, supply you with the necessary documents to support your claim.

INSTALLATION and START-UP



WARNING: Risk of personal injury

Installation procedures must be performed by a qualified technician with full knowledge of all applicable electrical codes and with proper load-bearing hardware. Failure could result in personal injury and property damage.



IMPORTANT: Power cord is 6' long

If necessary, contact a licensed electrician to install an appropriate 20 amp electrical circuit with correct NEMA receptacle.

DO NOT use an extension cord.



CAUTION: Electrical Shock Hazard

The ground prong of the power cord is part of a system designed to protect you from electric shock in the event of internal damage.

DO NOT cut off the large round ground prong or twist a blade to fit an existing receptacle.



IMPORTANT: Not under warranty

Damage to unit due to being connected to the wrong voltage or phase is **NOT** covered by warranty.



WARNING: Risk of personal injury

Unit is not waterproof, to avoid electrical shock, keep unit and counter from being submerged in water. Do not operate if unit has been in contact with water.

LOCATION

For proper operation and maximum performance, locate the unit in an ambient air temperature of 70°F (21°C).

Avoid placement in areas near exhaust fans or where there are active air movements.

For safe operation and maximum performance, locate the unit at least 2" from any wall or combustible material.

Unit must be on a solid level surface.

GROUNDING INSTRUCTIONS

This appliance is equipped with a cord having a grounding wire with a grounding plug which must be plugged into an outlet that is properly installed and grounded. In the event of an electrical short circuit, grounding reduces the risk of electric shock by providing an escape wire for the electric current.

WARNING—Improper use of the grounding can result in a risk of electric shock. Consult a qualified electrician or service agent if the grounding instructions are not completely understood, or if doubt exists as to whether the appliance is properly grounded.

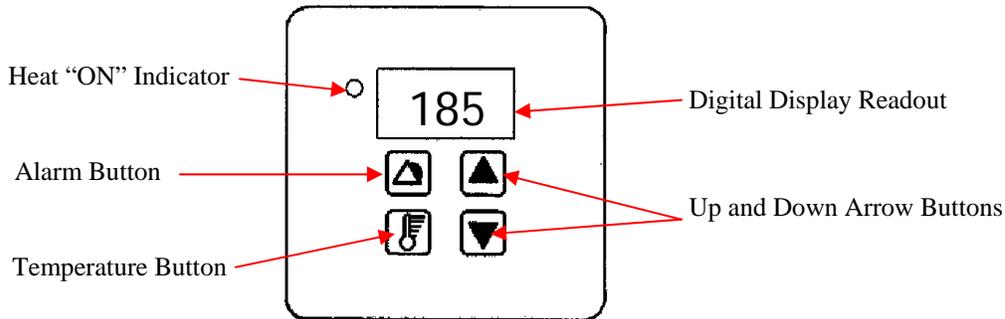
To prevent an electrical shock hazard between the appliance and other appliances or metal parts in close vicinity, an equalization-bonding stud is provided. An equalization bonding lead must be connected to this stud and the other appliances/metal parts to provide sufficient protection against potential difference. The terminal is marked with the following symbol:



START-UP

1. Prior to use, thoroughly clean the cabinet, according to the instructions in this manual (page 9).
2. If the cabinet is supplied with a grounded plug, plug the power cord of the cabinet into a grounded outlet with an electrical service. If the cabinet is supplied with a hard-wire power whip, a qualified electrician must make the electrical connection. **Unit operates on 120 volts, 60 Hz, 1800 watts, 15.2 Amps; NEMA 5-20P**
3. Set POWER switch to the "ON" position.
4. Do not load product into the cabinet. Allow the heat to remove any residual oils which may adhere to inside metal surfaces. A slight emission of smoke is common during the first few hours of operation.

CONTROL PANEL LAYOUT



NORMAL OPERATION



CAUTION: HOT SURFACE

Inner surfaces of the unit will be very hot during and after operation. Avoid touching the cabinet when loading or removing product.

Factory default setpoints:

- temperature: 185°F (85°C)
- low temp alarm: 140°F (60°C)

Operating ranges:

- temp alarm: 60°F-140°F (16°C– 60°C)
- air temp: 140°F-210°F (60°C - 99°C)

OPERATION

1. The power switch is located on the right front edge of the cabinet. Turn the power switch ON and let cabinet preheat for 30 minutes. When the cabinet is turned on, the air heater will operate until the cabinet reaches the air temperature setpoint. The display will read the actual cabinet temperature. The heat "ON" light will illuminate when the cabinet temperature is below the air temperature setpoint and the heating elements are activated. The controller will flash alternately "LO" and the actual cabinet air temperature until it reaches the low alarm temperature setpoint (140°F).
2. After preheat, load cabinet with food product. Food is held in 1/2 size long pans as that fit into the sliding wire racks inside the cabinet.
3. When cabinet is not in use, turn power off.
4. Cabinet must be cleaned daily. See cleaning instructions on page 9.

CONTROLLER PROGRAMMING INSTRUCTIONS

The controller (part number 18616-0333) has been factory pre-set for a holding temperature of 185°F (85°C) and an alarm set point of 140°F (60°C). In most cases, these set points will not need to be changed. However, if changes are necessary, the controller is programmable.

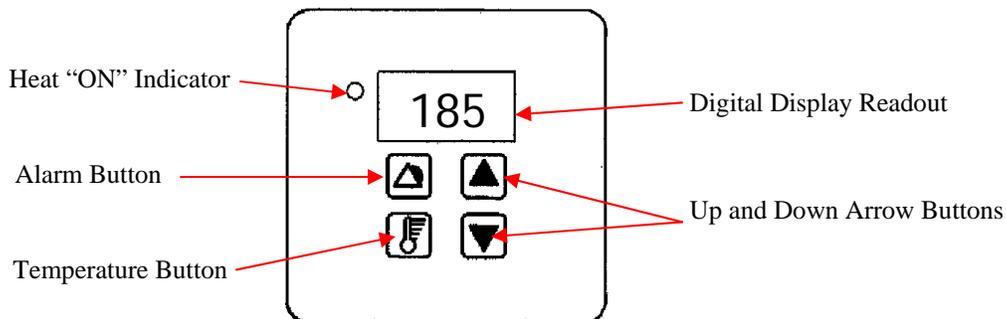
To View or Change Temperature Scale: The cabinet is programmable for a temperature scale in degrees Fahrenheit and Centigrade (Celsius). Turn power OFF. Hold down both arrow buttons. While holding both arrows, turn power back ON. Display will show current scale (**C** or **F**). To change the scale, push the up or down arrow. Turn power OFF to save your changes.

To View or Change the Temperature Set Point: Turn power ON. To view the temperature set point, press and hold the temperature set button and press the up or down arrow button until the desired air temperature is displayed. The display will advance in 1° increments.

To View or Change Alarm Set Point: Turn power ON. To view the alarm set point, press and hold the alarm reset button and press the up or down arrow button until the desired alarm temperature is displayed. The display will advance in 1° increments.

Changing the Temperature Range: The temperature range that this cabinet is designed within should be programmed for 210°F (93°C) Maximum and 140°F (60°C) Minimum. The cabinet operating temperature can be programmed to operate within these two set points.

1. Turn power OFF.
2. Press and hold the UP and DOWN arrow buttons. While holding the buttons, turn cabinet power back ON. The display will read: **Ser F** and then **F** will display (*if temperature scale is set to F*).
3. To change to range, press and release the TEMPERATURE button. The display will read: **rLo** and then the current low temperature range set point.
4. To change the temperature, press the UP or DOWN arrows until the desired temperature is displayed. The low setting should be set to 140°F.
5. Press the TEMPERATURE button again. The display will read **Rhi** and then the current high temperature range set point.
6. To change the temperature, press the UP or DOWN arrow buttons until the desired temperature is displayed. The high setting should be set to 210°F.
7. To save the changes into the controller memory, turn the cabinet power OFF.



CONTROLLER PROGRAMMING INSTRUCTIONS (Continued)

Changing the Alarm Range: The alarm range that this cabinet is designed to operate withing should be programmed for 140°F (60°C) Maximum and 60°F (16°C) Minimum. The cabinet low temperature alarm can be programmed to operate within these two set points.

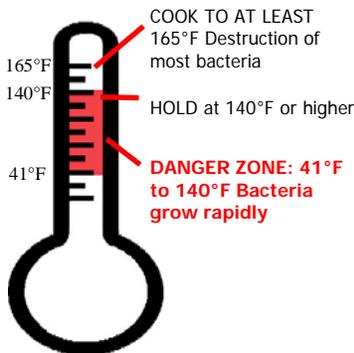
1. Turn power OFF.
2. Press and hold the UP and DOWN arrow buttons. While holding the buttons, turn cabinet power back ON. The display will read: **SerF** and then **F** will display (*if temperature scale is set to F*).
3. To change the range, press and release the ALARM button. The display will read ALo and then the current low alarm temperature set point.
4. To change the low alarm temperature, press the UP or DOWN arrows until the desired temperature is displayed. The low setting should be set to 60°F.
5. Press the ALARM button again. The display will read AHi and then the current high alarm temperature set point.
6. To change the high alarm temperature, press the UP or DOWN arrows until the desired temperature is displayed. The high setting should be set to 140°F.
7. To save the changes into the controller memory, turn the cabinet power OFF.

CRISP 'N HOLD FOOD HOLDING GUIDE



CAUTION: SAFE FOOD HOLDING PRACTICES RECOMMENDED

Cooking food to a safe temperature, holding at a temperature of at least 140°F is critical in the prevention of foodborne illness. Hold only cooked, hot food at 140°F or higher. This cabinet is not intended to cook or re-heat food. Food must be at appropriate temperature before being placed into cabinet.



PRODUCT	SET TEMPERATURE (°F / °C)	MAXIMUM TIME (MINUTES)
Bacon, Crisp (uncovered)	180°F / 82°C	30
Biscuits	170°F / 77°C	60
Chicken, Fried (uncovered)	170°F / 77°C	30
Chicken Nuggets, Deep Fried (uncovered)	190°F / 88°C	25
Coffee Cakes (uncovered)	170°F / 77°C	60
Cookies (uncovered)	175°F / 79°C	90
Croissants	170°F / 77°C	45
Egg Rolls	165°F / 74°C	45
Fish, Deep-Fried	170°F / 77°C	30
French Fries, Homestyle	175°F / 79°C	15
Mozzarella Sticks, Breaded/Fried	170°F / 77°C	30
Muffins	170°F / 77°C	60
Mushrooms, Breaded/Fried	180°F / 82°C	30
Onion Rings	190°F / 88°C	30
Pastries	165°F / 74°C	30
Pizza	180°F / 82°C	15
Poppers, Deep Fried	190°F / 88°C	25
Shrimp, Fried	170°F / 77°C	60

NOTE: Times and temperatures observed in a test kitchen environment. Times and temperatures may vary, depending on individual food properties, density, product load, initial food quality, initial cooked temperature and user expectations of acceptable food quality.

DAILY CLEANING PROCEDURES



**CAUTION:
ELECTRIC SHOCK
HAZARD**

Disconnect appliance from electric power before cleaning.



**CAUTION:
HOT SURFACE**

Exposed surfaces can be hot to the touch and may cause burns. Allow appliance to cool before cleaning.



IMPORTANT:

DO NOT spill or pour water into controls, control panel or wiring. Water damage is **not** covered by the warranty.



CAUTION:

Beware of sharp edges with sheet metal during cleaning process.



CAUTION:

Do not use steel wool pads to clean cabinet. Ferrous deposits will cause rusting; roughness of the pad will scratch the black powder coating on the front door frame.

1. After all food products have been removed from the cabinet, turn the power switch to "OFF" and allow the cabinet to cool. If cabinet is supplied with a plug, disconnect from power prior to cleaning.
2. Remove the pan rack cassette by placing both hands on the interior ceiling of the caddy. Lift up slightly and pull toward you. The cassette should slide out easily. Using a clean damp cloth with appropriate cleaner (see table below), clean the inside of the unit and the removed parts. Wipe any residue with clean damp cloth. Reinstall when all parts are clean and dry.
3. Inspect and clean the areas where there are vents or filters, making sure no water gets into the internal controls or electrical areas of the cabinet.
4. Plastic control panel should be washed with a clean damp cloth and chlorine-free detergent. Rinse thoroughly with clean damp cloth and allow to dry. Do not use abrasive cleaners, waxes, car polish, or substances containing strong aromatic solvents or alcohol.



CAUTION:

Cleansers, detergents, degreasers, sanitizers, or bleaching agents that contain chlorides or phosphates will cause permanent damage to stainless steel products. The damage appears as pits, eruptions, voids, small holes, severe discoloration or dulling of the metal finish.

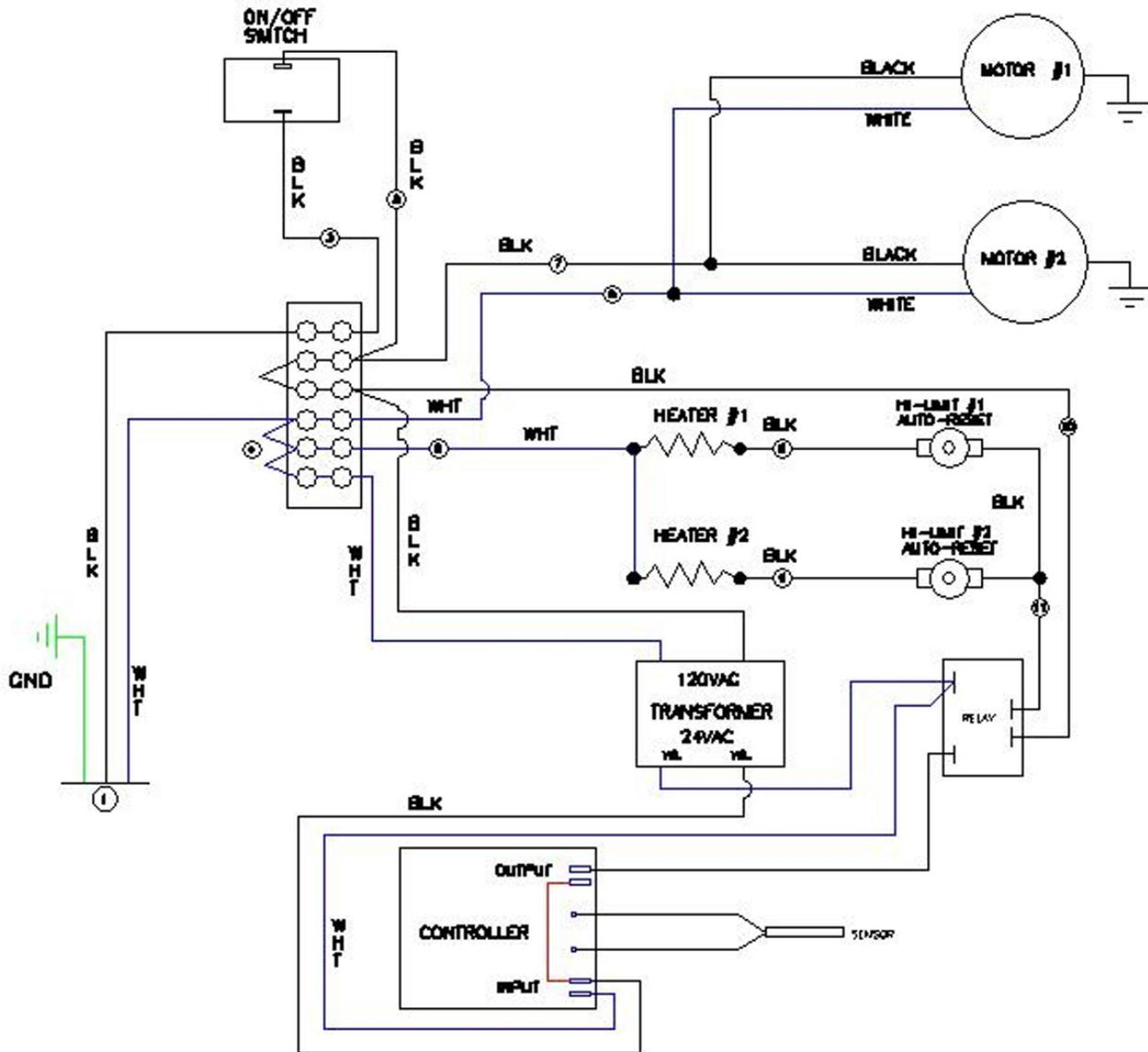
Water with high chloride content can also damage stainless steel. If unsure of your water quality, we recommend you have it tested. **THIS DAMAGE IS PERMANENT, COSTLY TO REPAIR, AND IS NOT COVERED BY THE WARRANTY.**

RECOMMENDED TIPS FOR CLEANING STAINLESS STEEL

<u>Purpose</u>	<u>Frequency</u>	<u>Cleaning Agent</u>	<u>Method of Application</u>
Routine cleaning	Daily	Soap, ammonia detergent and water	Sponge with cloth, rinse with clear water and wipe dry.
Smears/ Fingerprints	As needed	Stainless steel cleaner or similar products	Rub with soft cloth as directed on package. Rub in direction of grain of stainless steel. Do not use on vinyl trim.
Stubborn spots and stains	Daily as needed	Any chloride-free or phosphate-free cleaner	Apply with damp sponge or cloth. Rub in direction of grain of stainless steel. Rinse thoroughly, especially if cleaner contains chlorine bleach, do not use on vinyl trim.
Hard water spots	Daily as needed	Vinegar	Swab with cloth. Rinse with water and wipe dry.

WIRING DIAGRAM

VCNH2W3S Crisp 'N Hold Cabinet
120 VOLT, 1800 WATT, 15.2 AMP, 1 PH, 60 HZ, NEMA 5-20P



PARTS LIST

Part Number	Description	Part Number	Description
16090-2980	Caddy assembly	18614-0365	Blower wheel
18301-3080	3" swivel caster	18605-0017	Power cord, 14/3 HSJO with 5-20P plug
18301-3081	3" swivel caster w/brake	18616-9998	Cord grip
18600—0061	Hi-limit thermostat	18607-0017	Terminal board
18602-0083	On/off switch	18612-0113	Element—120v, 900w
18602-0031	Switch boot	18614-0272	Cooling fan guard
18616-0229	Controller	18614-0322	Cooling fan
18312-0442	Controller overlay	18614-0316	Cooling fan cord set
18616-0198	Temperature probe	18614-0362	Blower motor
18616-0135	Transformer	18314-0108	Plastic pan, high-temp 20"L x 6"W x 4"D
18616-0223	Relay		
18614-0342	Blower wheel housing		

TROUBLESHOOTING GUIDE

SYMPTOM	POSSIBLE CAUSE	SUGGESTED REMEDY
No power on display	Not plugged in or circuit breaker tripped	Check or reset circuit breaker Connect to proper receptacle
	Power cord damaged	Check - replace if required
	Power switch damaged or defective	Check - replace if required
Food dries out too quickly	Operation where product temp is too high or food should be covered	Check product temps going into holding cabinet; cover food pans
	Control incorrectly set or defective	Check proper operation or calibration of control
Unit is on, motors are running but no heat	Internal wiring error	Call service technician
	Element hi-limit trip / defective	Call service technician
Takes too long to get to temperature	Improper voltage	Call service technician to verify incoming voltage matches cabinet specifications.
Unit is hot but low or no airflow	Internal wiring error	Call service technician
	Circulation motor has quit	Call service technician
	Improper voltage	Call service technician to verify incoming voltage matches cabinet specifications.

NOTE:

The technical content of this manual, including any wiring diagrams, schematics, parts breakdown illustrations and / or adjustment procedures, is **intended for use ONLY by qualified technical personnel.**

NOTE:

For warranty service, call Carter-Hoffmann direct at 800-323-9793 for authorization, we will dispatch the nearest authorized service agency.

WARRANTY

Carter-Hoffmann Warranty:

Carter-Hoffmann ("CARTER-HOFFMANN") warrants to the initial purchaser of its standard Carter Line Products that CARTER-HOFFMANN will, at its option, repair or replace, during the warranty period set forth below, any part of such products made necessary due to a defect in material or workmanship which is present when the product leaves its factory and which manifests itself during the warranty period under normal use and service.

*This warranty applies only to original equipment owned and possessed by the initial purchaser and the warranty period begins on the date of original shipment from the CARTER-HOFFMANN factory and extends as follows: **to component parts and labor for 12 months (36 months on hotLOGIX holding cabinets, levels 3 through 10, and cook & hold cabinets); to refrigeration compressor unit for one year (limited to replacement only - not to include labor for removal, repair or replacement).***

Repair or replacements under this warranty will be performed, unless otherwise authorized in writing by CARTER-HOFFMANN, at its factory. All parts or components to be repaired or replaced under this warranty are to be shipped prepaid to CARTER-HOFFMANN, with reimbursement credit for such part or component to be given if found by CARTER-HOFFMANN to be defective.

CARTER-HOFFMANN neither makes nor assumes and does not authorize any other person to make or assume any obligation or liability in connection with its products other than that covered in this warranty. This warranty applies only within the continental United States and Canada. In Alaska and Hawaii, this warranty applies only to and is limited to the supply of replacement parts.

Warranty Exclusions and Limitations:

Any implied warranty of merchantability or fitness for a particular purpose is hereby specifically disclaimed by CARTER-HOFFMANN. There are no warranties, expressed or implied, which extend beyond the description on the face hereof. This warranty does not cover and CARTER-HOFFMANN shall not under any circumstances be liable for any incidental, consequential or other damages (such as injury to persons or property, loss of time, inconvenience, loss of business or profits, or other matters not specifically covered) arising in connection with the use of, inability to use, or failure of these products.

Specifications subject to change through product improvement and innovation.

Carter-Hoffmann

1551 McCormick Ave.

Mundelein, Illinois, 60060 USA

Phone: 847-362-5500 Toll free: 800-323-9793 Fax: 847-367-8981

Sales and Marketing E-mail: sales@carter-hoffmann.com

Service E-mail: technicalservice@carter-hoffmann.com

Company Website: www.carter-hoffmann.com

CFESA

Proud Member

NAFEM
North American Association of
Food Equipment Manufacturers