















TABLE OF CONTENTS

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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.

This appliance is intended to be used for commercial applications, for example, in kitchens of restaurants, canteens, hospitals and in commercial enterprises such as bakeries, butcheries, etc., but not for continuous mass production of food.

Part Number: 18400-0045 Printed in The United States of America Rev3: 042224



WARNING!

This symbol highlights hazards, which could lead to injury. Please follow the instructions very carefully and proceed with particular attention in these cases



DANGER! Electrical Shock Hazard!

This symbol draws attention to potential electrical hazards (dangerous voltage). If you do not follow the safety instructions, you may risk injury or death.



CAUTION!

This symbol highlights instructions, which should be followed to avoid any risk of damage, malfunctioning and/or breakdown of the device.



CAUTION! Hot Surface!

This symbol is a warning that the device surface is hot when in use. Ignoring this warning shall result in burns!



NOTE!

This symbol highlights tips and information, which have to be followed for an efficient and trouble-free operation of the device.



WARNING! Scalding Hazard!

To avoid scalding, do not use loaded containers with liquids or cooking goods which become fluids by heating in higher levels than those which can be easily observed.

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.

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.
- This appliance must be grounded. Connect only to properly grounded outlet.
- 3) Use this appliance only for its intended use as described in this 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 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) Only qualified service personnel should service this appliance.
- 9) DO NOT cover or block any openings on the appliance.

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Forced Convection Fried Food Holding Station

The Crisp n' Hold provides a heated stream of air to maintain fried food temperature and freshness, temporarily slowing the cooling of product after cooking. Forced air is heated through an electric resistance heater and ducted to a food grate. The heated air is discharged through small circular openings in the bottom of the grate and through a slotted opening located front top to provide a warm blanket of air over the food. Additionally, the grate has small round embossments to minimize hot metal contact with the food. Dual-sided access with removable food grate and crumb pan

Overall Dimensions inches (mm):

CNH10ULP: 8.875" (225mm) H x 22" (559mm) D x 10.688" (270mm) W CNH12ULP: 8.875" (225mm) H x 30.125" (765mm) D x 12.688" (321mm) W CNH12X24ULP: 8.875" (225mm) H x 24" (609mm) D x 12.688" (321mm) W CNH20X30ULP: 8.875" (225mm) H x 30.125" (765mm) D x 20" (508mm) W

Cabinet Material: 300 series stainless steel....400 series stainless and aluminized where appropriate.

Controls: Electrical / mechanical thermostat mounted inside of electrical cabinet.

Heater System: Electrical resistance heater, located away from oils and vapors.

Performance: Temperature range to 90 to 220°F (32 to 104°C). Factory preset to 190°F (88°C). Preheat to 190°F (88°C) in 30 minutes.

Agency Approvals: (Pending)



CNH12ULP









Electrical Characteristics

CNH10ULP

120 volts	120 volts	120 volts	120 volts
700 watts	1400 watts	1820 watts	1820 watts
5.9 amps	11.8 amps	15.1 amps	15.1 amps
1 phase	1 phase	1 phase	1 phase
60 Hz	60 Hz	60 Hz	60 Hz
NEMA 5-15P	NEMA 5-15P	NEMA 5-20P	NEMA 5-20P
Six foot cord with ground plug			
Six foot cord with ground plug			

CNH10ULP (CE)

230 volts
700 watts
3 amps
1 phase
60 Hz
NEMA 5-15P
Six foot cord with ground plug

CNH12ULP (CE)

120 volts 1400 watts 6.1 amps 1 phase 60 Hz NEMA 5-15P Six foot cord with ground plug

CNH12X24ULP (CE)

CNH12X24ULP

230 volts 1820 watts 7.9 amps 1 phase 50/60 Hz NEMA 5-20P Cord & plug type determined by destination country

CNH20X30ULP (CE)

CNH20X30ULP

230 volts 1820 watts 7.9 amps 1 phase 50/60 Hz NEMA 5-20P Cord & plug type determined by destination country



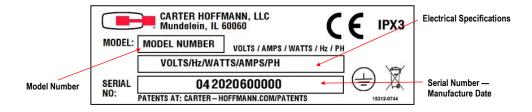
This appliance should be thoroughly cleaned prior to use. See the CLEANING INSTRUCTIONS (page 10) in this manual.

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 the bottom of this page.

- 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, instruction packet, mounting brackets and additional accessories, where applicable.
- 6. Read operation instructions completely.
- 7. Appliance should be thoroughly cleaned before use. See CLEANING INSTRUCTIONS in this manual (page 8).

EXAMPLE OF SERIAL TAG



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:

- 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.



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: Each Power Cord is 6 Feet Long

DO NOT use an extension cord. If necessary, contact a licensed electrician to install an appropriate electrical circuit with correct NEMA receptacle for each heater. Reference serial tag on cabinet.



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.



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 the unit has been in contact with water.



CAUTION:

To reduce the risk of fire, the appliance is to be mounted on surfaces of noncombustible material only.



IMPORTANT: Not Under Warranty

Damage to unit due to being connected to the wrong voltage or phase is **NOT** covered by warranty. Damage caused by leaks due to improper installation is not covered by warranty.

LOCATION

Read this manual completely before installing equipment.

For proper operation and maximum performance, locate the Crisp n' Hold in an ambient air temperature of 70° F (21°C). Avoid areas near exhaust fans where there is active air movement. For safe operation, locate the unit a reasonable distance from combustible walls and materials.

To prevent injury and damage, locate the unit at a proper and safe working height. The location should be level, clean of debris, and strong enough to support the weight of a fully loaded unit.

To prevent electrical shock during installation, make sure unit is not plugged into an electrical outlet. If unit has been operated, allow to cool before installing.

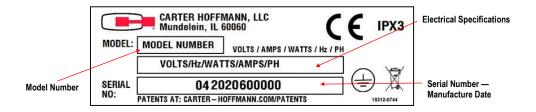
COUNTERTOP LOCATION

NOTE: This cabinet is not intended to be dropped into an enclosed compartment. It must be placed on a counter. The counter must be made of a non-combustible material, located away and shielded from combustible materials, clean and free of debris.

INSTALLATION (CONTINUED)

The power connection for each heater is a grounded plug. Electrical information for each heater is provided on the serial tag on the side of the cabinet. Verify that the proper electrical service required for this cabinet is available prior to installation. Plug the power cords into grounded outlets with a electrical service according to the electrical information provided on page 3.

EXAMPLE OF SERIAL TAG



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:



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 serviceman if the grounding instructions are not completely understood, or if doubt exists as to whether the appliance is properly grounded.

The ground lug of this appliance must be connected to a suitable building ground.

START-UP

- 1. Plug the Crisp n' Hold into a properly grounded electrical receptacle. See serial tag on the side of the unit to verify the proper electrical requirements.
- 2. Ensure all plastic and packaging materials have been removed.
- 3. Set POWER switch to "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 normal for the first few hours of operation.
- 5. Cabinet is preset at the factory, no temperature adjustment is necessary.

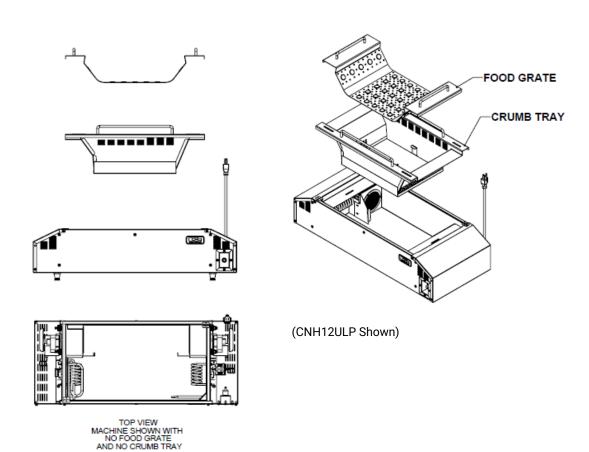


CAUTION! Hot Surface!

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

NORMAL OPERATION

- Prior to use, unit must have been installed properly and tested by a trained installation or service professional.
- 2. Unit must be clean and grease free prior to use.
- 3. Verify that the crumb pan and food grate are installed properly. Note: the crumb tray will fit in one direction but not the other. If it does not fit properly, turn it around.
- 4. Turn power on by flipping the toggle switch upwards. The motors should begin to turn and create airflow.
- 5. Unit will automatically begin to preheat, allow 30 minutes for unit to climb to operating temperature of 190°F (88°C).
- 6. Load product into Crisp n' Hold.
- 7. The cabinet must be cleaned daily. Perform cleaning at the end of each day. It is important to follow the cleaning procedures to keep grease and debris from building up. Failure to perform daily cleaning will clog the filters and damage the electrical components. See page 8 for cleaning instructions.





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.



MPORTANT:

DO NOT spill or pour water into controls, control panel or wiring. Water damage is **not** covered by the warranty. DO NOT use steel wool pads to clean the cabinet. Ferrous deposits will cause rusting.



WARNING:

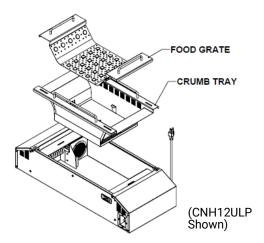
Beware of sharp edges with sheet metal during cleaning process.



WARNING:

In order to achieve all pole disconnect, unplug power cord from receptacle/power source.

- 1. After all food products have been removed from the cabinet, turn the power switch to "OFF" and allow the cabinet to cool for 30 minutes.
- 2. Unplug the unit prior to any cleaning.
- 3. The unit consists of three assemblies: base (housing all electrical components), crumb pan and food grate.
- 4. Lift out the food grate and crumb pan. Clean them by hand washing with soap and water and rinsing thoroughly with clean water. They may also be run through an automatic dish washer.
- 5. Reinstall when all parts are dry and clean.
- 6. Inspect and clean the areas where there are vents, making sure no water gets into the internal controls or electrical areas of the cabinet.



RECOMMENDED TIPS FOR CLEANING STAINLESS STEEL			
PURPOSE	FREQUENCY	CLEANING AGENT	METHOD OF APPLICATION
Routine Cleaning	Daily	Soap, ammonia, cleaning detergent and water, or company-approved cleanser	Sponge with cloth, rinse with clear water
Smears and finger- prints	As needed	Stainless steel cleaner or similar product	Rub with soft cloth as directed by the manufacturer. Rub in the direction of the 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. Rub in the direction of the 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.



CAUTION: POTENTIAL DAMAGE TO STAINLESS STEEL

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.



WIRING DIAGRAM (120 VOLT UNITS)

CNH10.5ULP

120 volts 700 watts 5.9 amps 1 phase 60 Hz

CNH12ULP

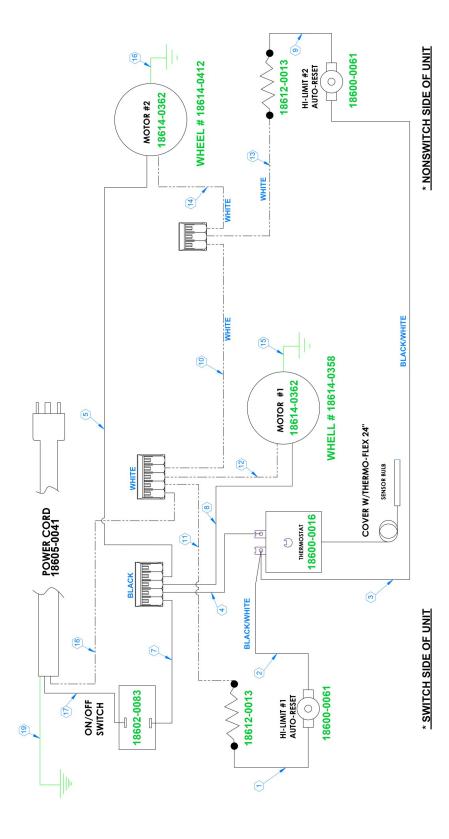
120 volts 1400 watts 11.8 amps 1 phase 60 Hz

CNH12X24ULP

120 volts 1820 watts 15.1 amps 1 phase 60 Hz

CNH20X30ULP

120 volts 1820 watts 15.1 amps 1 phase 60 Hz



WIRING DIAGRAM (230 VOLT CE UNITS)

CNH10ULP

230 volts 700 watts 3 amps 1 phase 50/60 Hz

CNH12ULP

230 volts 1400 watts 6.1 amps 1 phase 50/60 Hz

CNH12X24ULP

230 volts 1820 watts 7.9 amps 1 phase 50/60 Hz

CNH20X30ULP

120 volts 1820 watts 7.9 amps 1 phase 50/60 Hz NEED WIRING DIAGRAM(S) FOR CE MODELS

SYMPTOM	POSSIBLE CAUSE	SUGGESTED REMEDY
No power to unit	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	Thermostat incorrectly set or defective	Check proper operation or calibration of thermostat
Unit is on, motors are run- ning 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 Bad element Fan motor not working	Call service technician
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 that the incoming voltage matches unit specifications.

NOTE:

For warranty service, call Carter-Hoffmann direct at 800-323-9793 or email technicalservice@carter-hoffmann.com for authorization, we will dispatch the nearest authorized service agency.

NOTE:

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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.

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