

CARTS WITH THL TOP MOUNT HEATING SYSTEM

MODELS: BB700, BB1100, BB1300, BB1300XX, PH1470, PH1490

OWNER / OPERATOR'S MANUAL



MANUFACTURED BY:

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BB1300



PH1470



CAUTION: EQUIPMENT ELECTRICAL DAMAGE

DO NOT plug in or use this appliance until all *Installation Instructions* are read and followed. Damage to the appliance may occur if these instructions are not followed.

This manual is considered to be a permanent part of this appliance.

This manual must remain with the appliance if it is sold or moved to another location.

GENERAL INFORMATION

- This appliance is intended for use in commercial establishments, where all operators are familiar with the appliance use, limitations and associated hazards.
- Operating instructions and warnings must be read and understood by all operators and users.
- This appliance is intended for use to holding pre-cooked foods for human consumption. No other use is recommended or authorized by the manufacturer or its agents.
- Cleanliness of this appliance is essential to good sanitation. Read and follow all included cleaning instructions and schedules to ensure the safety of the food product.
- All included trouble shooting guides, component views and parts lists are included for general reference, and are intended for use by qualified service personnel.
- Knowledge of proper installation, operation and maintenance procedures is essential to ensure the safe operation of this oven.

SERVICE / SAFETY

- Always have dry hands prior to using the piece of equipment.
- Turn OFF the unit (not all units have power switches) anytime the cabinet is not in use.
- If an electrical shock is felt when touching the cabinet, disconnect the power immediately and call Carter-Hoffmann Technical Service for assistance.
- If the power cord is frayed or the plug damaged, DO NOT plug into the electrical power receptacle. If it is already plugged in, turn off the main circuit breaker, usually located in the building's breaker box, then disconnect the plug.
- Disconnect the power cord before attempting any repairs to the cabinet or heating unit.
- Repairs to this unit must be by qualified personnel.
- DO NOT SPRAY WITH WATER OR CLEANING SOLUTIONS, or submerge the heating unit. Components and wiring present a high shock hazard when wet.
- Disconnect heating unit when cleaning cabinet or heating unit.
- Both the interior and exterior surfaces of this appliance can be hot to the touch and may cause burns.

UNPACKING AND INSTALLATION



CAUTION: Electric Shock Hazard

All servicing requiring access to non-insulated components must be performed by qualified service personnel. Do not open any access panels which require the use of tools. Failure to heed this warning can result in electrical shock. Disconnect this appliance from electrical power before performing any maintenance or servicing.



WARNING: Injury Hazard

All installation procedures must be performed by qualified personnel with full knowledge of all applicable electrical codes. Failure could result in property damage and personal injury.



WARNING Electric Shock Hazard

Appliance must be plugged into a properly grounded receptacle to prevent possible shock hazard. Electrical shock will cause death or serious injury.



CAUTION: Burn Hazard

Interior surfaces of the appliance may be HOT to the touch, and can cause serious burns.



WARNING: Risk of personal injury

Installation procedures must be performed by a qualified technician with full knowledge of all applicable electrical codes. Failure can result in personal injury and property damage.

Unpack the cart and heating unit. Ensure that all packing materials and protective plastic has been removed from the unit. Inspect all components for completeness and condition.

NOTE: DO NOT discard the carton or other packing materials until you have inspected the appliance for hidden damage and tested it for proper operation. Refer to *SHIPPING DAMAGE CLAIM PROCEDURE* on PAGE 7 of this manual.



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.

Appliance should be thoroughly cleaned before use. See *CLEANING INSTRUCTIONS*, page 3.

Plug the heating unit into a properly grounded NEMA 5-15R electrical receptacle. **DO NOT MODIFY CORD PLUG.**

For first time operation of the cabinet, 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.

Electrical Information NEMA Plug Type

1500 watts
120 volts
13 Amps
60 Hz
Single Phase



IMPORTANT:

Power cord is 10' long. If necessary, contact a licensed electrician to install an appropriate 15 amp electrical circuit with NEMA 5-15R receptacle. DO NOT use an extension cord.



Before using, familiarize yourself with the heater controls. Read entire manual before operating this cart.

IMPORTANT:



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

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 electrical 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.

CLEANING



WARNING: ELECTRIC SHOCK HAZARD

Unplug the unit from electric power before performing cleaning or maintenance.



WARNING: BURN HAZARD

Allow the unit to cool before performing any cleaning or maintenance procedures.



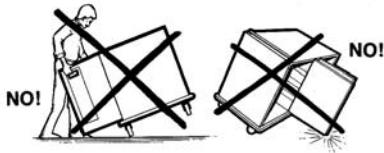
WARNING: ELECTRIC SHOCK HAZARD

DO NOT spray or splash water on the heater, control panel, timer or wiring.

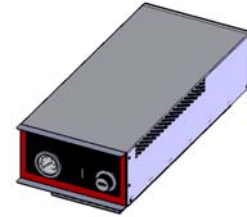


CAUTION: CART DAMAGE

Do not tip cart onto the doors to drain excess water. Permanent damage to the doors and hinges will result. Use a clean dry cloth to mop any excess water inside cabinet after cleaning.



Turn the main power switch OFF, unplug and allow the unit to cool before cleaning. Remove the THL heating unit; simply lift up and off the top of the cabinet. DO NOT spray or splash water on the heater, control panel, timer or wiring.



THL Heating System

1. Racks or shelves are easily removed without tools for cleaning, Simply lift up and pull out. The tray racks may be hand washed or run through an automatic washer.
2. To clean stainless steel surfaces use only cleansers, detergents, degreasers, or sanitizers that are certified to be "chloride-free" and "phosphate-free," and cleansers, degreasers, or sanitizers only in the recommended concentrations. **DO NOT** exceed recommended concentrations or mixing ratios. After cleaning and sanitizing, rinse all exposed surfaces thoroughly with large amounts of clean, clear water. Wipe off any standing liquid or residue from all surfaces, corners and rear edges.
3. Vinyl trim should be washed with a chlorine-free detergent and water. Rinse thoroughly with clear water and allow to dry. Never use abrasive cleaners, waxes, car polish, or substances containing strong aromatic solvents or alcohol. Use of **direct steam / hot water** cleaning at temperatures above **190°F** may result in "bubbling" or loosening of vinyl adhesive.
4. After all parts are dry, reinstall them and then replace the heating unit.

IMPORTANT: Cleansers, detergents, degreasers, sanitizers or bleaching agents that contain **chlorides or phosphates will cause permanent damage** to stainless steel products. This damage appears as pits, eruptions, voids, small holes, cracks, severe discolorations or dulling of the metal finish. Water with a high chlorine 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 WARRANTY.**

RECOMMENDED "TIPS" FOR CLEANING STAINLESS STEEL

PURPOSE	FREQUENCY	CLEANING AGENT	METHOD OF APPLICATION
Routine cleaning	Daily	Soap, ammonia, detergent and water	Swab with cloth. Rinse with clear water, wipe dry.
Smears and fingerprints	As needed	Stainless steel cleaner, similar products	Rub with cloth as directed on package. Rub in direction of grain of stainless steel. Do not use on vinyl trim or control panel.
Stubborn spots and stains	Daily or as needed	Any chloride-free or phosphate-free cleanser	Apply with damp sponge or cloth. Rub in direction of grain. Rinse thoroughly. Do not use on vinyl trim or control panel.
Hard water spots	Daily or as needed	Vinegar	Swab with cloth. Rinse with clear water, wipe dry.

DAILY OPERATION



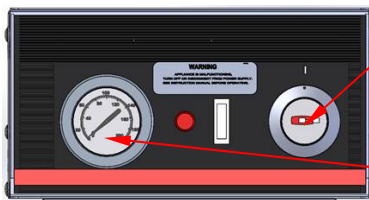
CAUTION: SAFE FOOD HOLDING PRACTICES RECOMMENDED

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 reheat food. Food must be at appropriate temperature before being placed into cabinet.



WARNING: FOR EQUAHEAT BANQUET CARTS

EquaHeat Banquet carts are equipped with canned fuel drawers at the base of the door(s). If you are using canned fuel (i.e. Sterno™), do not operate the heating system at the same time. Temperatures will get too high for proper food holding.



Thermostat knob

Thermometer dial

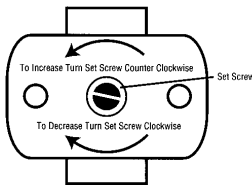


NOTE: BB series EquaHeat Banquet carts have drawers for canned fuel at the base of the cabinet. Cut-outs indicate where canned fuel should be inserted into the drawers. Do not operate the electric heating system at the same time you are using canned fuel or exceed the capacity of canned fuel (2 per door). Using more than the recommended quantity will result in temperatures that are too high for proper holding.

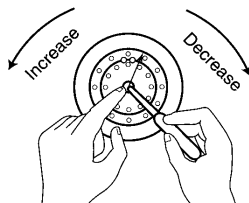
1. Plug the heater into a proven power source. The white indicator lamp and the fan will operate continuously whenever the heater is plugged in.
2. Turn the thermostat to number 4 or 5 on the knob. Be sure the cabinet door(s) are fully closed during the pre-heat time.
3. Food serving temperature will vary with the mass, type and quantity of food being held. Set the thermostat for the desired holding setting. Turn clockwise to increase the temperature and counter-clockwise to decrease the temperature.
4. During loading, the cabinet temperature will drop. Close the door and wait 10-15 minutes for the cabinet to recover air temperature before disconnecting from the power source.
5. Be sure to remove the plug from the outlet and wind the cord on the cord bracket or push handle before moving the cart. Move the cart to the service area as quickly as possible.
6. Upon reaching the service area, unwind the power cord and reconnect the heater as quickly as possible. Wait 10-15 minutes (check the thermometer to see if the temperature is at the desired level). If not adjust the thermostat as required.
7. When removing product from the cart, start at the bottom and work to the top position. This keeps food hotter and eliminates spillage on to lower items.

CALIBRATIONS

THERMOSTAT CALIBRATION



THERMOMETER CALIBRATION



If additional heat range is required in the heating unit, remove thermostat knob, insert small straight blade screwdriver into opening and turn limit control set screw **counter-clockwise** one full turn. Replace thermostat knob and turn clockwise to reach new maximum temperature. Repeat this until desired temperature is reached. Each 1/4 turn of the calibration set screw will raise the element heating capacity by approximately 25°F to 35°F (4°C to 7°C).

If a reduction of heat is desired, turn limit control set screw clockwise one full turn. Hold the door open and allow the unit to cool until inside temperature is below the temperature desired. Close the door and allow unit to rise to new maximum temperature. Repeat until desired temperature is reached.

Place an oven thermometer in the center of the cabinet. Turn heater on; turn thermostat to maximum setting and wait approximately 45 minutes. Open the door and check inside thermometer temperature. If recalibration is required, pry the plastic cover off the dial body and with a small flat blade screwdriver, insert into the pointer as shown. Carefully turn the pointer with your finger to the correct setting. Be careful not to bend the pointer. It is very fragile.

WIRING DIAGRAMS & PARTS LISTS

1500w, 120v, 13A
Standard Electric

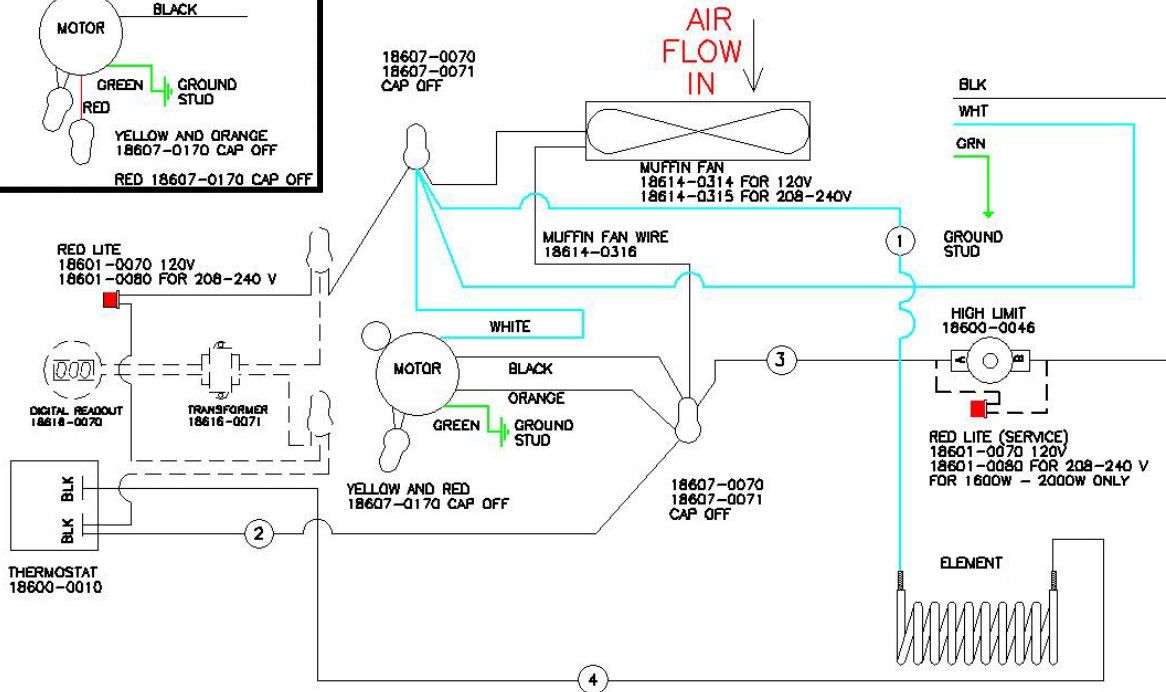
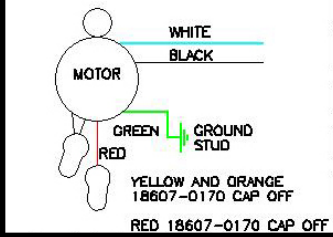
Alternate Electrical Configurations

1400w, 120v, 11.6A (Canadian Standard)
2000w, 120v, 16.7A
1500w, 220v, 6.8A
1500w, 230v, 6.5A
1500w, 230v, 6.5A (50Hz)
2000w, 240v, 8.3A

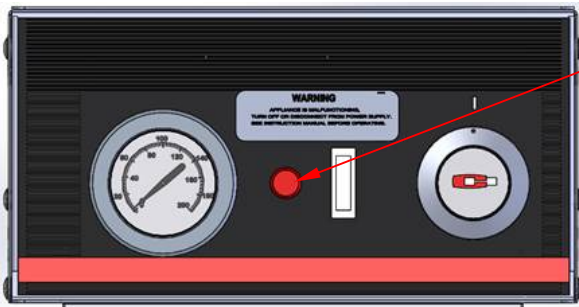
Plug type specified by destination country

Part Number	Description	Part Number	Description
16502-9297	THU/L inlet cover	18616-0015	Dial thermometer
16503-9969	Control panel	18608-0010	Thermostat knob
16503-9970	Housing cover	18601-0070	Clear light
16503-9971	Heater base	18312-0151	Overlay
16503-9972	Heat duct	18614-0321	Blower wheel
16505-1032	Heater bottom	16501-7442	Bulb hold-down
18614-0306	Low profile blower housing	16501-7443	Bulb mounting bracket
18612-0096	Heat element 120v/1500w	18614-0304	Flanged air inlet
16502-9825	Element plate (units built between 03/10 - 11/11)	18617-0100	Heyco #2073
18614-0324	Motor	18614-0314	Muffin fan 115v
18600-0010	Thermostat	18600-0046	Hi-limit

208-240 VOLT WIRING FOR MOTOR



MALFUNCTION LIGHT



If the malfunction light goes on, appliance is malfunctioning. Turn off or disconnect appliance from power supply and have serviced by a qualified technician.

GENERAL MAINTENANCE INSTRUCTIONS

CASTERS

Some casters are equipped with Zerk grease fittings so that they may be easily lubricated with a grease gun. Recommended lubrication is at least once every six months. Lubrication will be required more frequently if carts are cleaned with a hot water or steam cleaning system. Casters with special bearings are recommended for frequent cart wash or steam cleaning situations.

LATCHES

Check frequently to insure that all door latches are secure. Latches may become “sticky” due to residue build-up from daily use and cleaning. Lubricate latches regularly with WD-40, silicone spray, graphite or other commercial lubricants for stainless steel products. Do not use oil.

PERIMETER BUMPERS

Vinyl which has been dislodged from the channel due to severe bumping or scraping can be pried back into place with a common screwdriver.

TROUBLESHOOTING SUGGESTIONS

PROBLEM	PROBABLE CAUSE	POSSIBLE REMEDY
No power to unit, No light on display Motor not running	Not plugged in or circuit breaker off or tripped	Plug into receptacle. Reset circuit breaker, check facility circuit breaker
	Main switch damaged	Check main power switch, replace if damaged
	Damaged power cord	Replace cord
	Hi-limit safety tripped	Allow unit to cool, hi-limit will reset automatically, or replace
Unit does not hold temperature	Damaged door gasket	Replace gasket
	Damaged door latch	Replace defective latch
	Temp probe damaged	Replace probe
	Door gap, out of alignment	Adjust door hinging and strike
Unit does not heat	Cabinet temp above setpoint (setpoint too low)	Turn thermostat setpoint up Check thermometer calibration
	Damaged wiring	Repair wiring
	Damaged relay	Replace relay
	Damaged controller	Replace controller
	Damaged heating element	Perform ohm reading, Replace element
Unit overheats	Setpoint too high	Change setpoint
	Thermostat damaged	Replace thermostat
	Defective hi-limit control	Replace hi-limit
	Blower fan jammed	Find source of fan binding
Blower motor not running	Damaged fan motor	Replace motor
	Blower fan jammed	Find source of fan binding
Relay is “chattering”	Check proper wiring to switch	Repair wiring or replace switch
Red malfunction light is illuminated	Appliance malfunction	Call service technician

SERVICE EXPECTATIONS

SERVICE PHILOSOPHY

For almost sixty years, Carter-Hoffmann has enjoyed a reputation for manufacturing rugged, dependable foodservice equipment that permits foodservice professionals serve more food products to more people, and thus, to grow their business.

Our goal is not only to provide the best food service equipment for the price, but also to back it up with after-sale service that is responsive fast, efficient and professional. To ensure a clear understanding of our goals, expectations, and responsibilities, we have prepared this brief document.

Carter-Hoffmann products are innovative and efficient. They are easy to use, easy to clean and easy to maintain. Although the products are quite reliable they are also designed for easy repair. We believe that a malfunction to a Carter-Hoffmann product should cause as little inconvenience to the customer as possible. Our aim is to provide "same day"/first time fix" repair service on all of our products. We are dedicated to making every aspect of our customer service the standard by which others are judged.

END-USER RESPONSIBILITIES

While we all strive to serve our mutual customers as well as possible that does not mean that the end-user (including his employees) does not share some responsibilities.

1. All shipping damage must be noted on the freight bill when the shipment is received. Any freight damages must be collected from the Freight Company, NOT Carter-Hoffmann.
2. The end-user should be advised beforehand to carefully unpack and inspect all products when they are received BEFORE SIGNING THE SHIPPER'S RECEIPT OF DELIVERY.
3. The end-user must provide a safe, dry, level surface for the equipment to be placed upon.
4. The end-user must provide the proper electrical supply. All in-wall electrical modifications are to be completed by a licensed electrician. All building modifications are the responsibility of the end-user.
5. The end-user must operate, clean and maintain the equipment in accordance with the procedures described in the Operation Manual.
6. Carter-Hoffmann is NOT responsible for any loss of the customer's income, loss of food product, extra labor charges, or any other incidental or consequential costs as a result of the malfunction of our product.
7. The end-user shall allow for on-premises repair of the equipment to be completed at a mutually convenient place and time.

WARRANTY SERVICE

1. Warranty service is to be **initiated** by authorized Carter-Hoffmann personnel only.
2. The service provider is **NOT** authorized to change or extend any of the terms or conditions of our warranty.
3. Initial freight damage is **NOT** covered by the product warranty.

CONFIDENTIALITY

1. The end user and all his employees and sub-agents shall protect and keep confidential Carter-Hoffmann's proprietary designs, information, and knowledge.
2. All literature and informational materials provided by Carter-Hoffmann are to be considered confidential; they remain Carter-Hoffmann's property; and are not to be reproduced without our prior written consent.

SHIPPING 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 the damage.
3. **CONCEALED LOSS OR DAMAGE:** if damage is unnoticed until the merchandise is unpacked, notify the transportation company or carrier immediately, and file "CONCEALED DAMAGE" claim with them. This should be done within ten (10) days from the date the delivery was made to you. **Be sure to retain the container for inspection.**
4. Carter-Hoffmann cannot assume liability for damage or loss incurred in transit. We will, however, at your request, supply you with the necessary documents to support your claim.

CARTER-HOFFMANN WARRANTY

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 one year; to refrigeration compressor unit for one year (limited to replacement of the unit only-not to include the labor for removal, repair or replacement). Repair or replacement 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, express or implied, which extend beyond the description on the face thereof.

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 use, 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.

Note: Due to our continuous process of product improvement and innovation, all listed specifications subject to change.

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Proud Member

