



Installation and Operating Manual

Packaged Hot Food Merchandisers



**Island Hot Food
Merchandiser**
(Single or Double Tier)



**Mobile Rotisserie
Chicken Warmer**



**Multi-Deck Hot Food
Merchandiser**
(Standard or Deep)



**Octagon Hot Food
Merchandiser**
(Single or Double Tier)

Plus Custom Hot Food Merchandisers

FOR PARTS & SERVICE
Contact: Piper Products, Inc.
Phone: (800) 544-3057
Ask for Service Department

Important!

This manual contains important safety information concerning the maintenance, use and operation of this product. Failure to follow these instructions could result in damaging equipment, voiding the warranty, serious injury or even death.



Installation and Operating Manual

Packaged Hot Food Merchandisers

- Multi-Deck Hot Food Merchandiser
- Island Hot Food Merchandiser
- Mobile Rotisserie Chicken Warmer
- Octagon Hot Food Merchandiser
- Custom Hot Food Merchandisers

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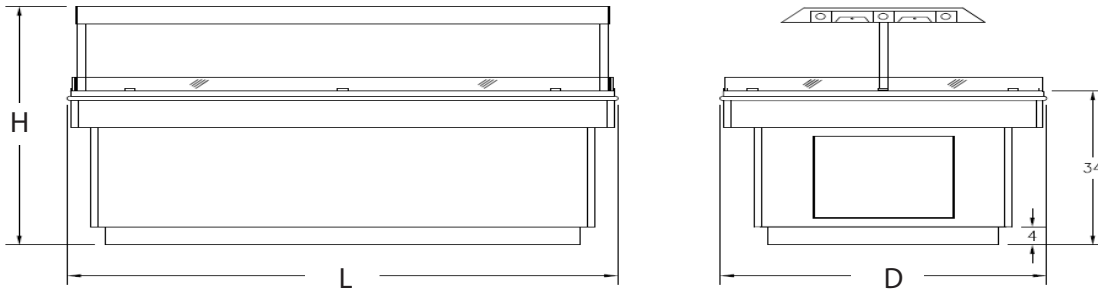
Supplemental:

Hot Food Holding Temperature Work Sheet

Island Hot Food Merchandiser



Unit shown is Double Tier with optional stainless steel exterior

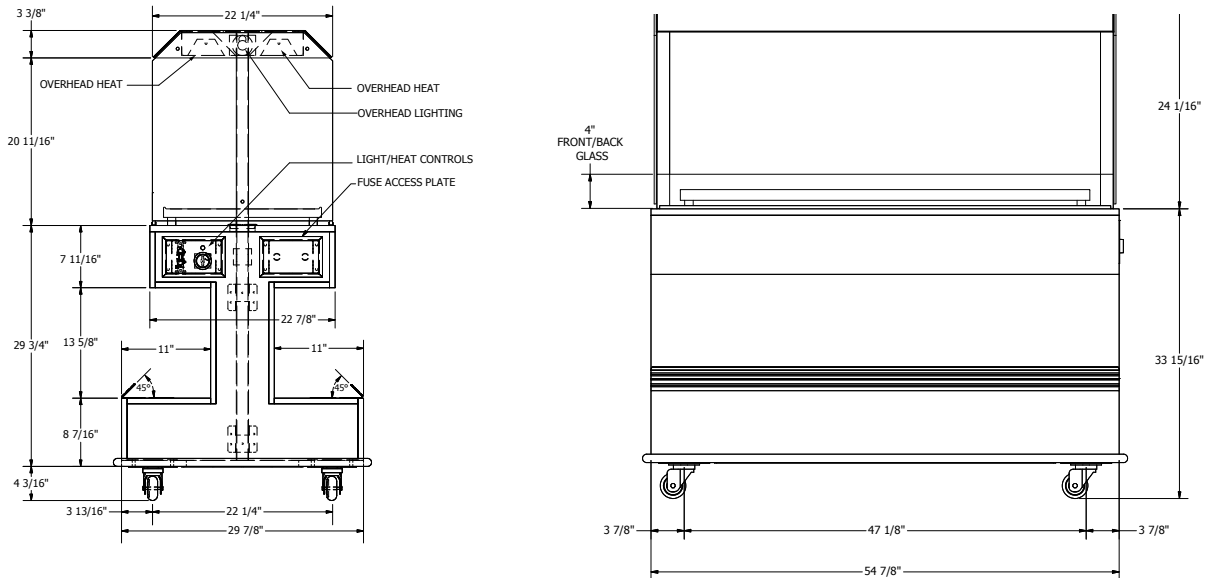


Illustrations Show Single Tier Hot Food Island Merchandiser

| Island Rotisserie | Capacity (packaged chickens) | Dimensions (inches) Including Accent and Bumpers | | | Volts | Phase | Amps |
|-------------------|------------------------------|--|--------|--------|---------|-------|------|
| | | L | D | H | | | |
| 3x5 Single Tier | 14 | 56-1/2 | 36-3/4 | 52-1/2 | 120 | 1 | 34.2 |
| 3x5 Double Tier | 26 | 56-1/2 | 36-3/4 | 67-1/4 | 120 | 1 | 47.3 |
| 3x6 Single Tier | 18 | 68-1/2 | 36-3/4 | 52-1/2 | 120 | 1 | 42.8 |
| 3x6 Double Tier | 32 | 68-1/2 | 36-3/4 | 67-1/4 | 120 | 1 | 59.4 |
| 4x6 Single Tier | 31 | 80 | 48 | 52-1/2 | 120/208 | 1 | 32.5 |
| 4x6 Double Tier | 49 | 80 | 48 | 67-1/4 | 120/208 | 1 | 40.0 |

R&D Fixtures is constantly working to improve energy efficiency. Electrical estimates are for reference only and subject to change without notice as improvements are implemented.

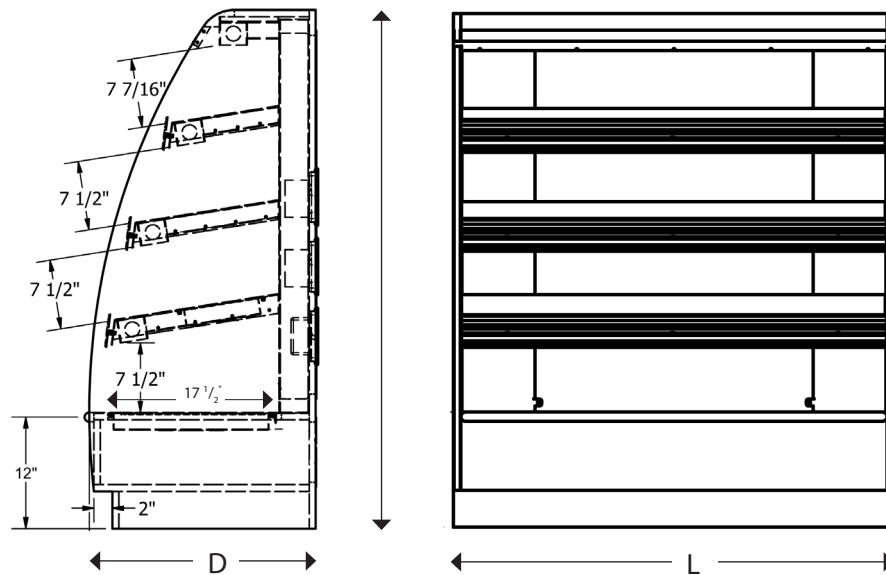
Mobile Rotisserie Chicken Warmer



| Mobile Rotisserie Chicken Warmer | Capacity (packaged chickens) | Dimensions (inches) | | | Volts | Phase | Amps |
|----------------------------------|------------------------------|---------------------|----|----|-------|-------|------|
| | | L | D | H | | | |
| 55" x 30" Mobile, Single Tier | 12-14 | 55 | 30 | 62 | 120 | 1 | 24 |

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Multi Deck Hot Food Merchandiser



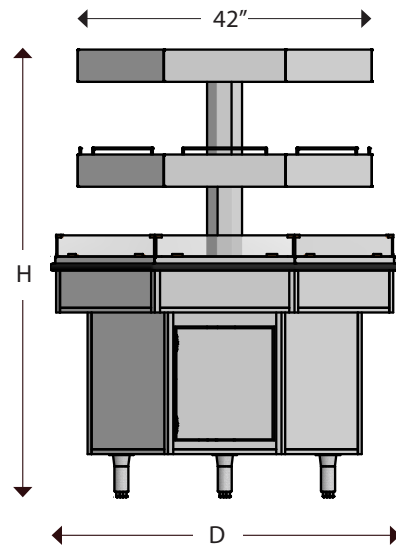
| Multi-Deck Rotisserie | Capacity (packaged chickens) | Dimensions (inches) | | | Volts | Phase | Amps |
|-----------------------|------------------------------|---------------------|----|----|---------|-------|------|
| | | L | D | H | | | |
| 4' | 28 | 48 | 24 | 56 | 120/208 | 1 | 14.2 |
| 6' | 44 | 72 | 24 | 56 | 120/208 | 1 | 21.3 |
| 8' | 60 | 96 | 24 | 56 | 120/208 | 1 | 28.4 |

R&D Fixtures is constantly working to improve energy efficiency. Electrical estimates are for reference only and subject to change without notice as improvements are implemented.

Octagon Hot Food Merchandiser



Photo and Line Drawings show double tier model



| Octagon Rotisserie | Capacity (packaged chickens) | Dimensions (inches) | | | Volts | Phase | Amps |
|--------------------|------------------------------|---------------------|----|----|---------|-------|------|
| | | L | D | H | | | |
| Single Tier | 16 | 50 | 50 | 49 | 120/208 | 1 | 12.6 |
| Double Tier | 32 | 50 | 50 | 64 | 120/208 | 1 | 18.2 |

R&D Fixtures is constantly working to improve energy efficiency. Electrical estimates are for reference only and subject to change without notice as improvements are implemented.

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Ambient Conditions Considerations

After installation this unit requires an initial adjustment procedure to find the correct heat setting that works with ambient conditions surrounding the equipment. Nearby refrigerators, freezers, and even the air conditioning and air flow in the store environment greatly affect the ability of the hot food merchandiser to maintain optimal temperature. So each merchandiser may have different settings depending on surrounding equipment and ambient conditions.

Setup time to determine optimal unit temperature will vary depending on ambient conditions. If conditions vary throughout the day, or from season to season, the unit's temperature settings will require adjustment to account for those changes.

A worksheet has been provided at the end of this document to record settings and temperatures. This worksheet may be used both to set up the unit and for daily testing.

Achieving the Proper Holding Temperatures

After being powered on the unit will take between 15-25 minutes to heat up in a typical store environment.

- **The Overhead Heat element does most of the work to maintain temperature.**
- The heat plate the product sits on helps to create the convection currents that create a "heat envelope" within the product display area.

Instructions for setting the upper and lower temperature controls can be found in the section entitled "Operating the Temperature Controls".

!! Important Notes !!

- **Hot Food units are intended to MAINTAIN product temperature**, not to cook or bring a refrigerated product up to 140° holding temperature. Food should be moved to the merchandiser immediately after cooking.
- Use local health department guidelines to determine maximum time food may remain in the heated unit.
- Temperature below 140° (F) allows bacteria to grow and will not pass local health inspection guidelines.
- Food temperature must be checked throughout the day to assure correct holding temperature is maintained. Check with your local health department for temperature testing frequency requirements.
- Rotate packaged food from inside to outside every 30 minutes.
- Stir food items every 30 minutes to keep contents uniformly heated.

Managing Convection Currents in the Open Air Heated Display Environment

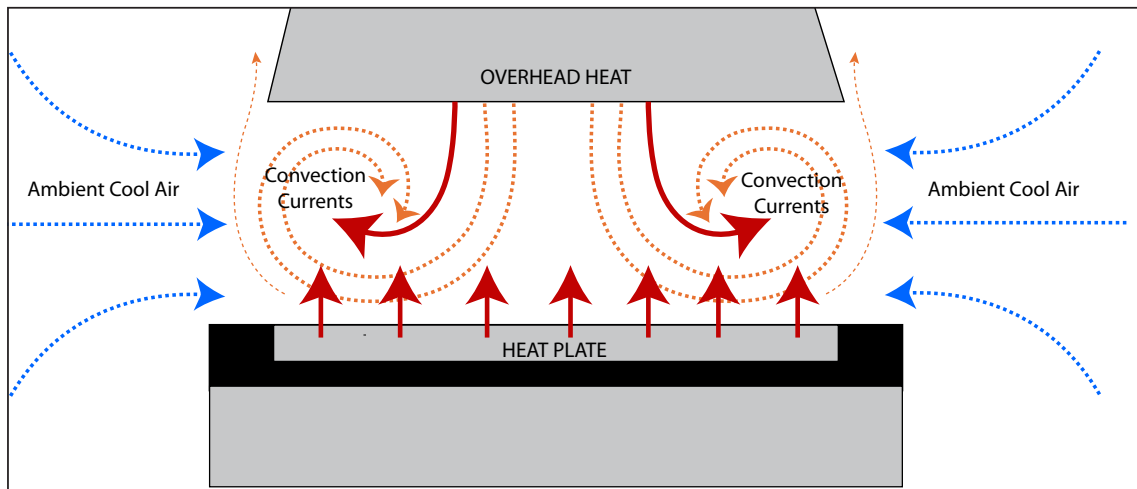
The Hot Food Island uses both overhead and heat plate (lower) heating to maintain product at a constant temperature. The combination of these heating elements creates a convection “envelope” that uniformly heats the product once a proper balance is reached between the upper and lower heating elements.

As shown in the graphic below, while the convection currents are strong and stable on the interior of the envelope, cool air from the surrounding environment may impact the outer regions of the convection envelope more than the inner regions. For this reason it is important to regularly rotate the product being heated.

Temperature testing your product with a probe thermometer is the only way to accurately determine the frequency of product rotation needed within your store environment.

A work sheet has been included at the end of this manual for use both during the initial unit setup procedure and for daily temperature testing once the unit is in use.

**!! To keep foods uniformly heated:
 Rotate or stir food every 30 minutes.**



**!! Open Air Convection Heating mechanisms are impacted by surrounding air flow temperatures.
 Be sure the unit is not located near a door to the outside or a heating/air conditioning vent.**



Achieving the Proper Holding Temperatures

After being powered on the unit will take between 15-25 minutes to heat up in a typical store environment.

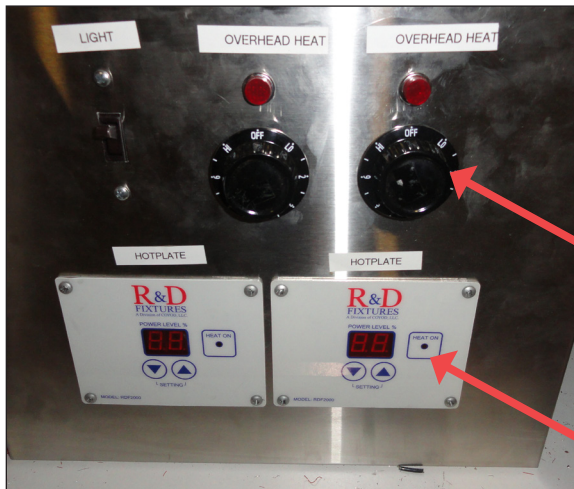
- The Overhead Heat element does most of the work to maintain temperature.
- The heat plate that product sits on helps to maintain product temperature. At too high a temperature, the heat plate will continue to cook the food product.
- Use unit manual guidelines to establish optimum upper and lower heat settings for the unit’s environment.

General Guidelines:

- Use a probe thermometer sanitized with an anti-bacterial wipe to test the temperature of hot food.
- Fully insert the thermometer into the product. Food must be 140° to be considered safe.
- Test at regular intervals throughout the day using local health department guidelines.
- Rotate packages regularly from outside to inside to achieve consistency in holding temperatures.
- Stir liquids regularly

Operating the Temperature Controls

R&D Fixtures Hot Food Merchandisers use both a heat plates and overhead heat lamps to maintain food temperature. Depending on the unit, either a digital LED temperature controller or an Infinite (dial) Switch adjusts the heat plate temperature. Overhead heat lamps are controlled by Infinite (dial) Switches.



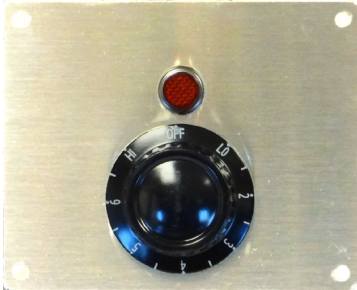
Heat and Light Controllers

Product is heated from below by hot plates and from above by heat lamps. **Both methods** are required to be in use and properly set to maintain correct food temperature.

Infinite Switch

Digital LED Controller

Infinite Switch (Dial) Temperature Control Operation



Units with Infinite Switch controlled hot plates should be started with the hot plate control at the 3-4 setting. This setting should only be increased if the product is not maintaining 140° temperature.

Overhead heat should be started at the 5-6 setting.

After enough time has elapsed for the food to reach the set temperature, sanitize and insert a probe thermometer into the food product to measure the temperature of the food. Determine whether the product

has reached a safe heated temperature based on local health regulation food temperature guidelines.

If the product is too cool (less than 140°), turn the dial to the next highest setting, wait for the food to reach temperature and recheck. Continue this process until the thermometer reading is 140° or higher. If the product temperature is too warm, turn the dial to the next lowest settings. After the product has had time to cool, use a thermometer to recheck the temperature. Cooling time will depend on ambient conditions. Sanitize the thermometer each time it is used and fully insert the thermometer into the product to determine core temperature.

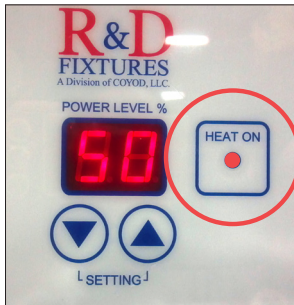


Minumum safe holding temperature for hot foods is 140°.



Digital Temperature Control Operation

The **Digital Temperature Meter** is based on pulse technology and does not require the controller to monitor the temperature of the hot plate. This eliminates the need to have bulb sensors.



When the temperature controller is in operation the "HEAT ON" LED will illuminate (see image at left). This LED will pulse as the controller is operating. The lower the percentage the faster the LED will pulse.

!! Recommended setting for start-up is 50% power. Unit will take 20-30 minutes to achieve full temperature for its setting when first powered up. !!

The higher the percentage, the longer the LED stays lit during each pulse.

After enough time has elapsed for the food to reach the set temperature, sanitize and insert a probe thermometer into the product to measure the temperature of the food. Determine whether the product has reached a safe heated temperature based on local health regulation food temperature guidelines. Minimum safe holding temperature for hot foods is usually 140°.



When powered on the meter's red LED display will read "0F". This stands for OFF.

If the product is too cool (less than 140°), raise the percentage reading on the meter a few points and recheck temperature. Continue this process until the thermometer reading is 140° or higher.



Press and hold the UP ARROW for 2 to 3 seconds until the controller shows 30% power. The % number will begin to climb at 1% increments allowing the user to control the amount of power flowing to the heating element.

If the product temperature is too warm, lower the power percentage a few points by pressing the down arrow on the controller. After the product has had time to cool, use a thermometer to recheck the temperature. Cooling time will depend on ambient conditions. Clean the thermometer each time it is used and fully insert the thermometer into the product to determine core temperature.

Important Note !!!

The number on the meter is a POWER LEVEL, not the temperature. To determine the temperature, a cooking thermometer must be used directly on the product. Follow local health department guidelines for food temperature testing.

Safe Electrical Installation

- If the unit uses an electrical plug, always connect to a properly grounded electrical outlet of correct voltage, size and plug configuration.
- If the unit requires an electrical line to be connected to an internal load center or junction box, have a qualified electrician perform the installation.
- Always follow local, state, federal, and NEC electrical and plumbing codes to ensure compliance.
- All servicing which requires access to non-insulated electrical components must be performed by a factory authorized technician.
- Do not operate the unit if the electrical components appear damaged.
- Check the rating label for electrical rating.

Instructions for Making Field Electrical Connections at Joints

- Disconnect power before servicing or working on the unit.
- Consult an electrician for proper installation. **Caution—Risk of Electrical Shock.**
- Make the electrical connections after the sections of the counter have been physically secured together.
- Wherever two counter sections mate, one section will be provided with wires routed in conduit which terminate in a junction box. The other section will be provided with wires routed in conduit which either terminate in a junction box or extend approximately 6 in. (15.2 cm) from the end of the conduit.
- If the wires in both sections of the counter terminate in junction boxes, the provided fitting should be used to secure the two junction boxes together. The wires in one of the junction boxes should be routed through the fitting into the other junction box.
- If the wires in one of the sections do not terminate in a junction box, the wires that extend from the end of the conduit are to be routed through the opening provided into the junction box to the other section. The conduit is to be secured to the junction box with the provided fitting.
- The leads in the junction box are to be matched-up according to the identifying stickers on the lead ends.
- All electrical connections are to be made in the junction box.
- The junction box cover is to be secured in place.

Safe Cleaning and Maintenance

- To avoid injury, disconnect the unit from the power source or multiple power sources before performing any maintenance or cleaning. Do not clean while unit is still hot or cold.
- Thoroughly clean the unit before first use.
- Never clean unit by immersing or spraying it with water.
- All surfaces should be cleaned by hand with a mild anti-bacterial detergent and cloth. Never use iron or steel wool, sharp or metal objects, acids, strong chemicals, oven cleaner, or abrasive or caustic cleaners as they will cause permanent damage including scratches and discoloration.
- Clean Caesarstone or solid surface countertops by blotting up spills immediately, before they penetrate the surface. **DO NOT PLACE HOT ITEMS DIRECTLY ON THE STONE SURFACE.**
 - Always use a soft, clean cloth with a mild detergent. Thoroughly rinse with water after washing.
 - For stubborn stains, use a Blue Scotch Brite pad with Soft Scrub Gel with Bleach.
 - Contact a professional to remove or repair a scratch or crack.
- If the unit has a condenser, be sure to clean the fins of dust and debris every month.
- Be sure the unit is not located near a door to the outside or a heating/air conditioning vent.
- Do not store any combustible material or cleaner inside or around the unit.
- Do not store any combustible material or cleaner inside or around the unit

PIPER PRODUCTS, INC. LIMITED WARRANTY

All Piper products are warranted to be free of defects in material and workmanship for a period of 12 months from date of purchase on all parts and labor.

Piper Products, Inc. warrants to the original purchaser that its equipment will be free from defects in the materials and/or parts for a period of 12 months from date of shipment and reported to the factory. The purchaser is responsible for having equipment properly installed, operated under normal conditions with proper supervision and to perform periodic preventative maintenance. Equipment failures caused by inadequate water quality, improper cleaning, harsh chemicals, or acids are not covered under warranty.

The manufacturer's obligation under this warranty shall be the replacement or repair of defective parts within the warranty period. Excessive labor (more than 1/2 hour) required to access Piper equipment built into cabinets, tables or structures by others, is NOT covered under labor warranty. Example: Piper multiple- or single-well food wells. All labor shall be performed during regular working hours. Overtime premium will be charged to buyer. After thorough examination, the decision of the Piper Products Service Department shall be final.

Any defective parts to be repaired or replaced must be returned to Piper Products, Inc., 300 South 84th Avenue, Wausau, WI 54401, transportation charges prepaid, and they must be properly packed and tagged. The serial and model number of the equipment and date of original installation of such equipment must be given. However, after one year we will not assume any responsibility for any expenses (including labor) incurred in the field incidental to the repair or replacement of equipment covered by this warranty. Our obligation hereunder to repair or replace a defective part is the exclusive remedy for breach of this warranty; and we will not be liable for any other damages or claims, including consequential damages.

If, upon inspection by Piper Products, Inc. or its Authorized Service Agency, it is determined that this equipment has not been properly installed or has not been used in an appropriate manner, has been modified, has not been properly maintained, the warranty will be void. Also, if the nameplate or other identifying marks have been removed, defaced or changed or the unit has been repaired or altered by persons other than expressly approved by Piper Products, Inc., the warranty will be void. If the equipment has been subjected to misuse or misapplication, neglect, abuse, accident, damage during transit or delivery, fire, flood, riot or acts of God, then this warranty shall also be void. When any situation occurs which voids the warranty the manufacturer shall not be liable for any damage to any person or any property which may result from the use of the equipment thereafter.

Warranty is limited to Piper manufactured products only and does not apply to other equipment which may be connected to or installed within.

No representative, dealer, distributor or any other person is authorized or permitted to make any other warranty or obligate Piper Products, Inc. to any liability not strictly in accordance with this policy.

This warranty is in lieu of all other warranties expressed or implied, including any warranty of merchantability, and fitness for a particular purpose. Piper Products does hereby exclude and shall not be liable to purchaser for any consequential or incidental damages including but not limited to damages to property, damages for loss of use, loss of time, loss of profits or income, resulting from any breach of warranty.

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Hot Food Holding Temperature Work Sheet

Date: _____

Time _____ Hot Plate setting _____ Overhead Heat Setting _____ Product temp. _____

Time _____ Hot Plate setting _____ Overhead Heat Setting _____ Product temp. _____

Time _____ Hot Plate setting _____ Overhead Heat Setting _____ Product temp. _____

Time _____ Hot Plate setting _____ Overhead Heat Setting _____ Product temp. _____

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