

# OPERATING INSTRUCTIONS

## Dedicated Holding Bin Model No. DHB-34



Prince Castle Food Holding Bins provide the capacity required for large foodservice operations while performing at peak energy efficiency. Each unit features two individually controlled holding chambers. The DHB-34 has shatterproof lighting to illuminate foods. New Reli-A-Temp™ infrared heater technology holds product temperatures more consistent within the designated holding time than other types of heating systems. This exclusive heater design spreads the heat evenly over the entire food holding area, eliminating edge drop off. Food is kept at the desired serving temperature.

### ELECTRICAL SPECIFICATIONS

	DHB-34	DHB-34CE	DHB-34GB	DHB-34J
Voltage	120	220-240	240	200
Watts	1525	1650	1650	1525
Hertz	50/60	50	50	50/60
Amps	12.7	6.9	6.9	12.7

### TABLE OF CONTENTS

	PAGE
Installation .....	2
Heater Temperatures .....	2
Overlay Glossary .....	3
Operation .....	4
Programming .....	4
Calibration & Cleaning .....	5
Exploded View & Parts List .....	6
Troubleshooting .....	7
Wiring Diagram .....	8

### LIMITED WARRANTY

This product is warranted to be free from defects in material and/or workmanship for a period of 1 year from date of original installation, not to exceed 18 months from the date of manufacture.

Any component which proves to be faulty in material and/or workmanship will be replaced or repaired (at the option of Prince Castle, Inc.) without cost to the customer for parts and labor. This warranty covers on-location service (i.e. trip charges and/or mileage). Travel mileage is limited to 100 miles (200 Kilometers) round trip (one trip warranty) from an authorized service agency or its sub-service agency.

This warranty is subject to the following exceptions/conditions:

- Use of any non-genuine Prince Castle parts voids this warranty.
- All labor to be performed during regular work hours. Overtime premium (the incremental amount) will be charged to the customer.
- Damage caused by carelessness, neglect and/or abuse (e.g., dropping, tampering or altering parts, equipment damaged in shipment, by fire, flood or an act of God) is not covered under this warranty.
- All problems due to operation at voltages other than that specified on equipment nameplates are not covered by this warranty. Conversion to correct voltage is the customer's responsibility.
- This equipment must be serviced by Prince Castle Authorized Service Agency or a Prince Castle Service Technician during the warranty period.

## INSTALLATION

- After you have removed the Holding Bin from the carton, inspect the unit for signs of damage. If there is damage to the unit:
  - Notify carrier within 24 hours after delivery.
  - Save carton and packing materials for inspection purposes.
  - Contact your local dealer or, if purchased directly, the Prince Castle Customer Sales Department at 1-630-462-8800 to arrange for a replacement to be sent.
- Verify that all parts have been received.
- Remove all packaging and fillers. **Note:** Make sure that you remove vinyl protective cover from the stainless steel exterior surfaces and both sides of the doors before turning on power.
- Remove Heat Shield (packaged and on top of Bin) and line up 3 Keyhole slots with studs above heater compartment and attach.
- Plug unit into a 120 Volt grounded outlet.

## TEMPERATURE CONTROLLER

The DHB-34 Holding Bin will hold two 18" x 12" sheet pans. There are top and bottom heaters for each pan. Each heater has independently controlled front and rear sections. All heater zones are independently controlled to set point temperatures. The following is the relationship between the heater zones and pan location.

**Heater 1 Front** = Left Upper, Front Heat Zone  
**Heater 1 Rear** = Left Upper, Rear Heat Zone  
**Heater 2 Front** = Left Lower, Front Heat Zone  
**Heater 2 Rear** = Left Lower, Rear Heat Zone  
**Heater 3 Front** = Right Upper, Front Heat Zone  
**Heater 3 Rear** = Right Upper, Rear Heat Zone  
**Heater 4 Front** = Right Lower, Front Heat Zone  
**Heater 4 Rear** = Right Lower, Rear Heat Zone

The DHB-34 has preset temperatures for two different specifications, one for use with doors (Figure 1) and one for use without doors (Figure 2).

**IMPORTANT:** Do not program a differential greater than 30°F (1.1°C) between the front and rear heater. See the explanation in Troubleshooting on page 7 of this manual.

figure 1

### HEATER IDENTIFICATION AND PROGRAM SET POINT TEMPERATURES WITH DOORS

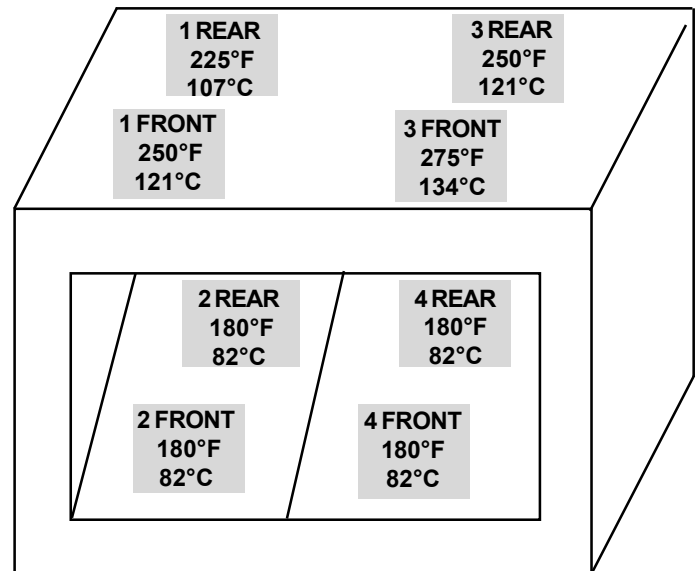
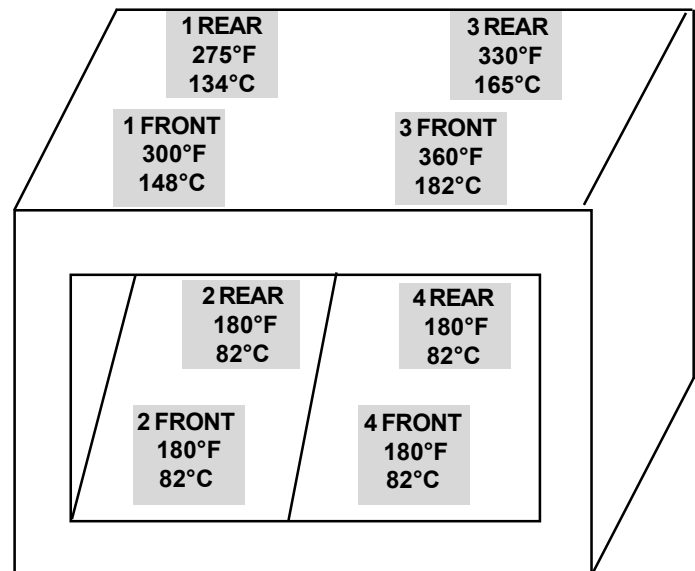


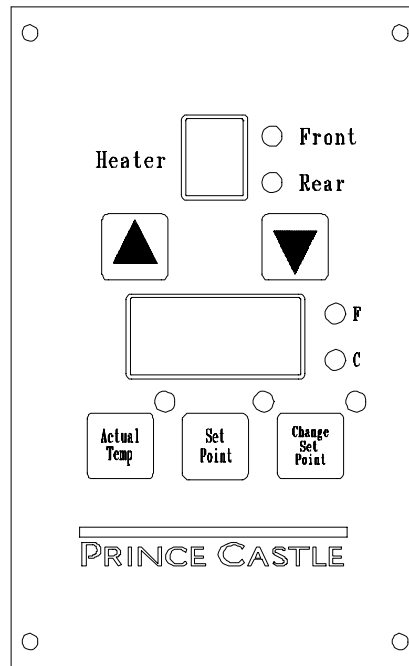
figure 2

### HEATER IDENTIFICATION AND PROGRAM AND SET POINT TEMPERATURES WITHOUT DOORS



**NOTE:** Actual heater surface temperatures will vary from programmed set point temperature when front and rear heater set point differential is 20° F (.6°C) or greater.

# OVERLAY PANEL



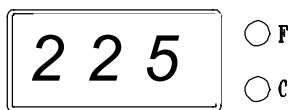
## OVERLAY PANEL BUTTON GLOSSARY



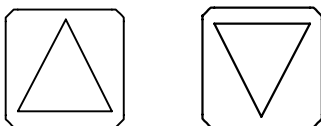
When pressed, will send the unit into the CALIBRATION MODE. When pressed in conjunction with "Change Set Point" Button will allow the set point temperature to be changed.



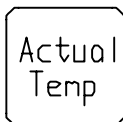
Displays the currently selected heater and zone (Front or Rear)



Displays the actual temperature for the selected heater zone.



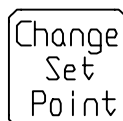
In the OPERATION MODE Up and Down Arrows are used for selecting a shelf heater zone for display purposes. In PROGRAM MODE increase/decrease the set point value for the current heater being programmed.



In the OPERATION MODE when pressed, display will show the current temperature for the selected heater zone. In PROGRAM MODE when pressed will end the program mode.



In the OPERATION MODE when pressed, display will show the current setpoint temperature for the selected heater zone. In the PROGRAM MODE when pressed will end the program mode.

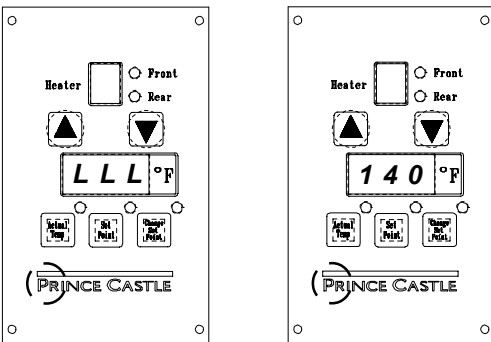


When pressed with the PRINCE CASTLE LOGO will allow the setpoint temperature on the selected heater to be changed.

## OPERATION

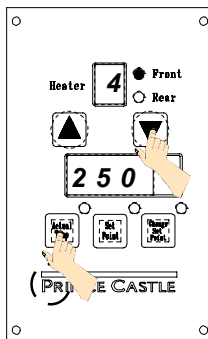
1. Turn on power switch and light switch located under control panel
2. Allow 20 minutes for heaters to reach set point temperatures. For a cold start, the temperature display will show **LLL** until the heater temperature reaches 75°F(23°C).

**NOTE:** To set to °F (The unit leaves the factory set in Celsius) turn the power switch to the “OFF” position. Press and hold the “UP ARROW” Button then turn the power switch to the on position, release the “UP ARROW” 10 seconds after turning on the power. To switch from °F to °C turn power switch to the “OFF” position. Press and hold the “DOWN ARROW” Button then turn the power switch to the on position, release the “DOWN ARROW” 10 seconds after turning on the power



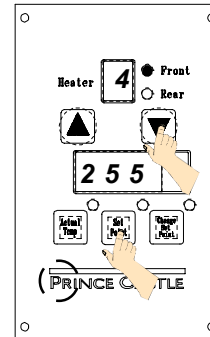
### Show the Actual Temperature for a heater:

1. Press the Up or Down Arrow button until the heater number and front or rear heater indicator is selected.
2. Press the Actual Temp button.



### Show the Setpoint Temperature for a heater:

1. Press the Up or Down Arrow button until the heater number and front or rear heater indicator is selected.

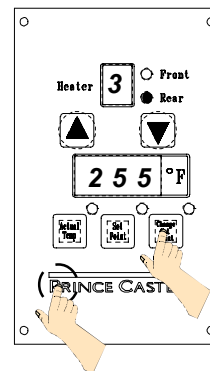


2. Press the Set Point button.

## PROGRAMMING

### Change the Setpoint temperature for a heater:

1. Press the Up or Down Arrow button until the heater number and front or rear Heater indicator are selected.
2. Press and hold the hidden button (PRI) behind the Prince Castle logo and the Change Set Temp button together for 5 seconds. The LED indicator for Change Set point will light.



3. Use the Up and Down Arrow button to increase or decrease the setpoint temperature. The heater can be turned off by pressing the Down Arrow until the display reads “OFF”.

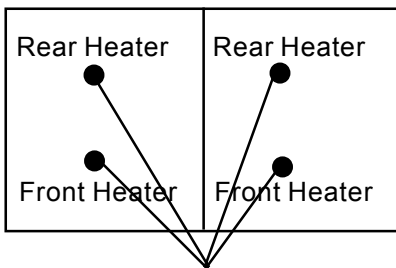
**IMPORTANT:** Do not program a set point temperature differential greater than 30°F(1.1°C) between the front and rear of any heater assembly.

## CALIBRATION

Occasionally, there are measured differences between the restaurant's temperature meter and what the controller senses for a heater surface temperature. Part of the difference is the location of the controller sensor versus the location where the temperature was measured with the restaurant's temperature meter. The calibration mode is used to adjust the Prince Castle controller to the restaurant's meter.

**IMPORTANT:** Allow heaters 20 minutes to stabilize before starting the calibration mode.

1. Press the Up or Down Arrow button until the heater number and front or rear heater indicator for the heater to be calibrated are selected.
2. Make an external temperature measurement within the shelf cavity near the center of the heater surface using a stand alone temperature meter and probe (not supplied).

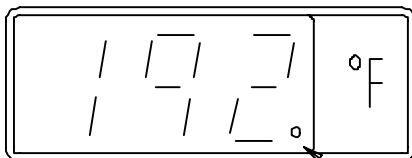


**Take Temperature Reading At These Spots**



**CAUTION: Surface temperatures are HOT! Use caution when making any temperature measurements within the heater cavity.**

3. Press and hold the PRI in the Prince Castle Logo and the Actual Temp button for 3 seconds. The decimal point to the left of the °F symbol will light indicating the Calibration Mode. The temperature value displayed on the front panel is the actual heater temperature sensed by the controller.



Calibration Mode active

4. Use the Up and Down Arrow button to increase or decrease the displayed temperature until it matches the value measured by the standalone meter.
5. When the temperature value displayed on the front panel is equivalent to the temperature value measured by the standalone meter, press the hidden Prince Castle Logo button.
6. The new value will be saved by the controller and Calibration Mode will end.

**To clear or reset the calibration value, follow steps 1 through 3.**

To clear the calibrated offset value, press the Set Point button. The display will show the temperature value the sensing probe is measuring. Use steps 4 through 6 to calibrate the temperature display to the restaurant's standalone meter.

## CLEANING



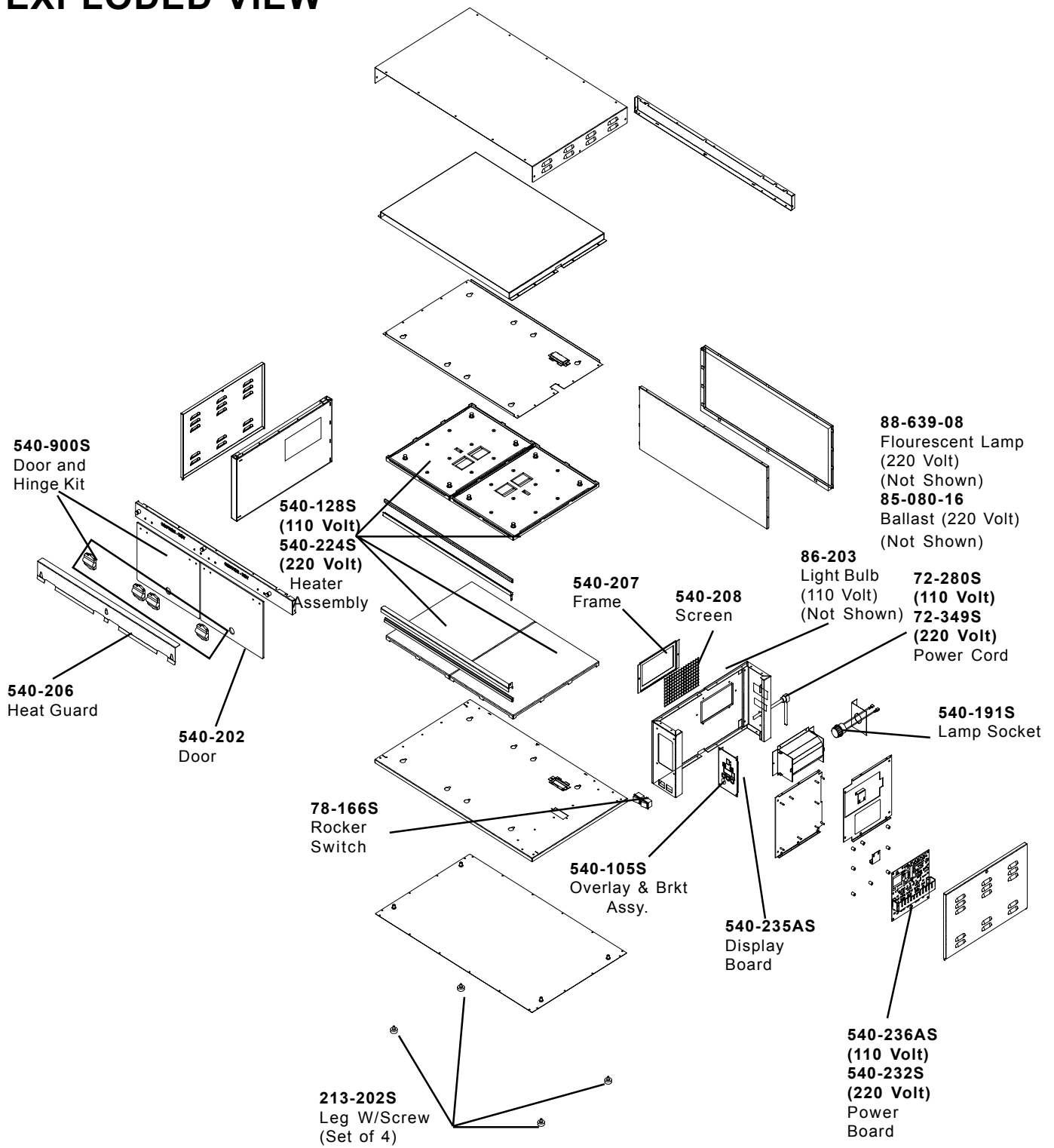
**CAUTION: This appliance is not water tight. Do not clean with a Water Jet/Jet Spray. Do not immerse appliance in water.**



**CAUTION: Before unplugging power cord, make sure power switch is in OFF position.**

1. Unplug Holding Bin from outlet.
2. Allow unit to cool down. (Approximately 15 minutes.)
3. Wipe down with a damp cloth. Do not use a green scotch bright pad, unapproved cleaner, ice or water.

# EXPLODED VIEW



## TROUBLESHOOTING

The controller incorporates some diagnostic hardware and software to aid in troubleshooting problems. The display will flash the problem if detected when the heater in question is selected. The error condition will not display in the Change Set Temp mode.

**IMPORTANT:** To avoid a possible error message, do not program a differential greater than 30°F between the front and rear of any heater assembly. The heater with the higher setting may not be able to get up to temperature because heat will be flowing to the colder heater. An error message will be displayed and the heater that could not get to temperature will be turned off.

Problem	Cause	Solution
A. Display flashes "Opn" & "rEL"	Open relay. Circuit inoperable	Replace Power Circuit Board
B. Display flashes "SHr" & "rEL"	Shorted relay. Circuit inoperable. Open heater.	Replace Power Circuit Board.  Test heater resistance. 150.2 Ohms Unplugged ribbon cable between Verify ribbon cable connection. Power and Main Circuit Boards.
C. Display shows "LLL"  Display shows "LLL" for an extended period of time.  Display shows "LLL" and then changes to "Opn"& "rel" and heater surface temperature is cool.  Display shows "LLL" and then changes to "SHr"&"rEL" and heater surface temperature is cool.	Temperature is below 75° F (normal operation)  Heater inoperable. Probe inoperable.  Circuit inoperable. (see A).  Circuit inoperable. (see B)	N/A  Test heater resistance. 150.2 Ohms Check for open thermocouple wires from probe. Replace heater/probe assembly.  See A above.  See B above.
D. Display shows "HHH" for an extended period of time and heater surface temperature is hot.  Display shows "HHH" for an extended period of time and heater surface temperature is cool.	Temperature is above 400° F (abnormal operation)  Probe is inoperable	Diagnostic circuit inoperable. Replace Power Circuit Board. See B above.  Check for pinched thermocouple wires from probe. Replace heater/probe assembly.

# WIRING DIAGRAM

