

# Operation Manual



Extend Holding Bin  
EHB Series



**ATTENTION:** Read the instructions before using the machine.

Find language translations of this document at [bk.princecastle.com](http://bk.princecastle.com).

## LIMITED WARRANTY

Subject to the terms and conditions set forth herein, the manufacturer warrants that the product shall be free from defects in materials and workmanship for a period of three (3) years from the date of original installation. This warranty applies to both repair parts and service labor. Notwithstanding the foregoing, the warranty commencement date shall not exceed ninety (90) days from the date of manufacture, regardless of the actual installation date.

Timer bar components and associated kits are separately warranted to be free from defects in materials and workmanship for a period of five (5) years from the applicable warranty commencement date. Following the expiration of the initial three (3) year equipment warranty period, coverage shall be limited exclusively to parts and shall no longer include service labor.

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 nature) 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.

**Note: When connected to the Sicom® Chef, the Transfer and Menu functions are disabled on the button bar.**

## TABLE OF CONTENTS

Model Identification	2
Model Specifications	2
Safety Information	2
Configurations	3
Product Identification	4
Installation	4
Operation	5
Standalone Mode	6
Setting Product Location (Standalone Mode)	7
Cleaning	7
Setting the Temperature	8
Calibrating the Heaters	9
Changing the Hold and Cook More Times	10
Changing Product Names	11
Changing Temperature Scale	12
Adjusting Alarm Volume	12
Default Menu	13
Zone Layouts	13
Troubleshooting	14
Diagnostics	15
Wiring Diagrams	16-17
Exploded Views	18

**PRINCECASTLE**  
MARSHALL FOODSERVICE TECHNOLOGIES  
A BERKSHIRE HATHAWAY COMPANY

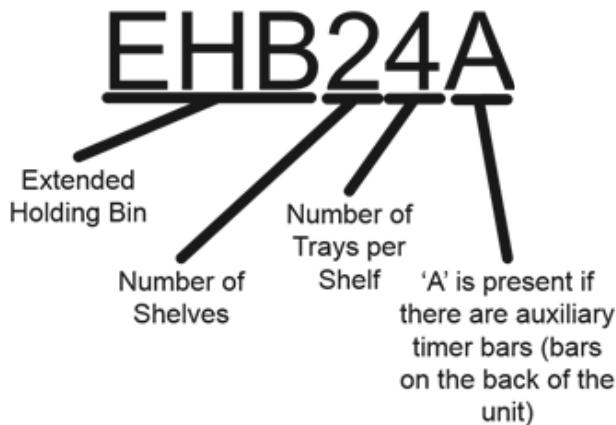
355 EAST KEHOE BLVD. ~ CAROL STREAM, IL, 60188, USA  
PHONE: 630-462-8800 ~ TOLL FREE: 1-800-PCASTLE  
FAX 630-462-1460 ~ [WWW.PRINCECASTLE.COM](http://WWW.PRINCECASTLE.COM)

# Extend Holding Bin

## EHB Series



### Model Identification



### Model Specifications

STYLE	MODEL NO.	WIDTH (mm)	HEIGHT (mm)	DEPTH (mm)	WEIGHT (kgs)	VOLTAGE	AMPS
2H X 2W	EHB22A	19.7 (500)	11.1 (282)	14.1 (358)	64 lbs. (29.0)	208-240	3.8-4.3
2H X 3W	EHB23A	27.2 (691)	11.1 (282)	14.1 (358)	74 lbs. (33.6)	208-240	6.8-7.8
2H X 4W	EHB24A	33.2 (843)	11.1 (282)	14.1 (358)	97 lbs. (44.0)	208-240	9.0-10.4
3H X 2W	EHB32A	19.7 (500)	18.3 (465)	14.1 (358)	80 lbs. (36.3)	208-240	6.8-7.8
3H X 4W	EHB34A	33.2 (843)	18.3 (465)	14.1 (358)	120 lbs. (54.4)	208-240	13.5-15.6
4H X 2W	EHB42A	19.7 (500)	20.6 (523)	14.1 (358)	94 lbs. (42.6)	208-240	7.5-8.7

**NOTE:** All Model Numbers above are for double-sided units (with auxiliary timer bars). For single-sided, remove the letter "A"

**NOTE:** For international (outside of the US) add "CE" to the end of the model number.

**NOTE:** Weight (kgs) is shipping weight.

### Safety Information



#### WARNING

Indicates information important to the proper operation of the unit. Failure to observe may result in damage to the equipment and/or severe bodily injury or death.



#### CAUTION

Indicates information important to the operation of the unit. Failure to observe may result in damage to the equipment.

### Safe Service Practice

The service manual is intended for use by persons having electrical and mechanical training and a level of knowledge. PRINCE CASTLE cannot be responsible, or assume any liability for injury or damage arising from the use of this manual.

To avoid personal injury and/or property damage, it is important that safe service practices be observed, including the following:

- Do not service this unit without first reading this manual.
- Do not attempt a repair, if you have doubt as to your ability.
- Do not attempt to replace any components, unless all power has been disconnected.

**Configurations**



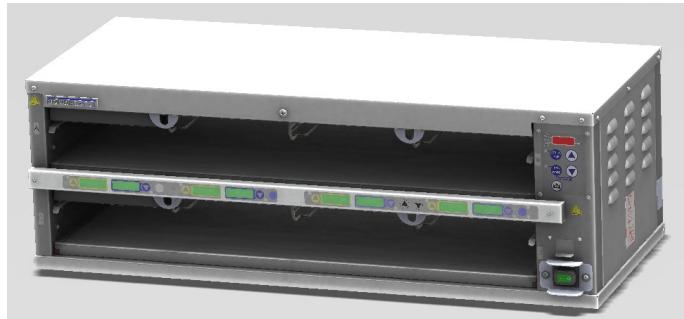
**EHB22A**



**EHB23A**



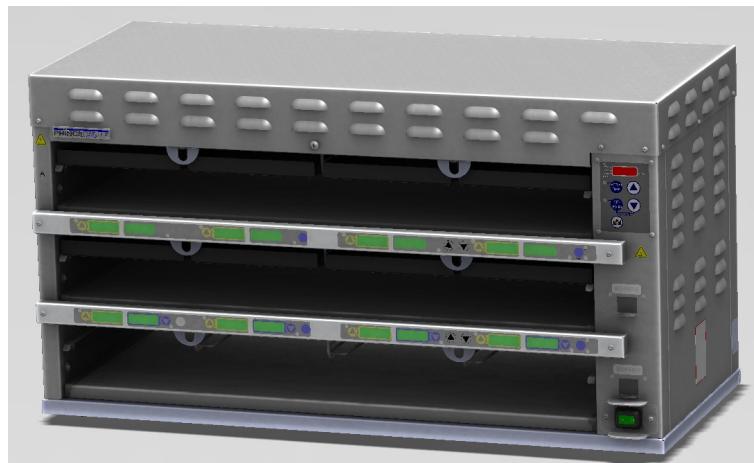
**EHB32A**



**EHB24A**



**EHB42A**



**EHB34A**

# Extend Holding Bin

## EHB Series



### Product Identification



Temperature Control Panel

Button Bar

Power  
ON/OFF  
Switch

PAN LIDS, ONLY used with broiled products.  
(Fried products DO NOT require lids)



LED TIMERS ( tri-color)  
(1 for each pan arrow button)

TRANSFER Button  
(Not used)

UP and DOWN ARROW

ENTER Button

BKFT LED  
(Breakfast)

BUTTON BAR  
PRINCE CASTLE  
LOGO Button

PAN ARROW Buttons  
(2 for each slot wide)

UPPER PAN Display  
(1 for each slot wide)

LOWER PAN Display  
(1 for each slot wide)

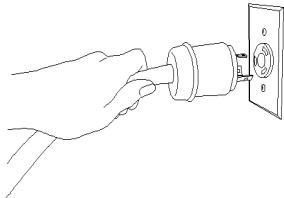
REG LED  
(Regular Menu)

### Installation

- 1 Remove the unit from the carton and inspect for signs of damage. If there is damage to the unit:
  - notify the carrier within 24 hours of delivery
  - save carton and packaging materials for inspection purposes
  - contact your local dealer, or if purchased directly, the Prince Castle Sales Department at 800-722-7853 or 1-630-462-8800 to arrange for a replacement unit.

**NOTE:** Plug the power cord into the proper electrical receptacle. All electrical connections must be in accordance with local electrical codes and any other applicable codes.

- 3 Plug unit into a grounded receptacle with a matching plug configuration.



#### WARNING:

All electrical connections must be in accordance with local electrical codes and any other applicable codes.

If the supply cord is damaged, it must be replaced by the manufacturer, its service agent, or similarly qualified persons in order to avoid a hazard.

To prevent an electric shock hazard this device must be bonded to equipment in close proximity with an equipotential bonding conductor. This device is equipped with a grounding lug for this purpose.

- 2 Place Extend Holding Bin on flat surface. Remove blue and/or white protective covering.

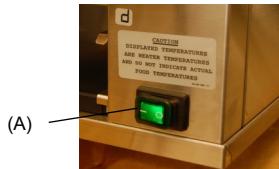
**NOTE:** When installing this unit, the ambient temperature at the mounting site should not exceed 100°F (38°C)

#### Operation



**WARNING:** This application 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.

**1** To turn on the unit,  
Turn Power On/Off switch (A) to **ON** position.



Allow 20 minutes for heaters to reach operating temperature. The button bar will read "WARM UP" as the unit warms up, they will display the product names.

**NOTE:** Load pan covers (if used) and insert pans into the unit.

**2** Press all Pan Arrow buttons.  
The Pan displays will show the assigned product name.



If no product is assigned, the display will be dim and show "----". Pressing the Pan Arrow button will not activate the timer if "----" is displayed. Pressing Pan Arrow button when product name is displayed will start timing cycle.

BKFT (Breakfast) or  
REG (Regular Menu)  
will be lit depending on  
pre-programmed menu.

**3** LED Timing Status



LED TIMERS

OFF (steady) = Ready for product  
RED (flashing) = Discard product  
GREEN (steady) = Oldest product, use first  
GREEN (flashing) = Cook more product  
YELLOW (steady) = Newer product, use green first  
YELLOW (flashing) = Cook more product

**4** When **LED** is off, load product and press the Pan Arrow button.



If more than one pan is active for a product, the **LED** for the first pan loaded will turn to **GREEN**.

The **LED** for the 2nd pan loaded with the same product will turn from **GREEN** to **YELLOW**.

The **LED** timer can be stopped (cancelled) at any time by pressing and releasing the corresponding **PAN** Arrow button.

**5** When any of the timer **LED** flash, cook more product.  
If red LED is flashing, remove and discard product as

**GREEN** (flashing) = Cook more product  
**YELLOW** (flashing) = Cook more product  
**RED** (flashing) = Discard product



**WARNING: HOT SURFACES**

# Extend Holding Bin

## EHB Series

### Standalone Mode

**NOTE:** Prince Castle Holding bins are not to be connected to each other. If attempting to configure bins with Sicom Chef, please refer to the Chef-EHB Setup Guide at [bk.princecastle.com](http://bk.princecastle.com).

#### 1 Set all bin addresses to **bin1**.

The factory default address for all bins and timers is address **bin1**.

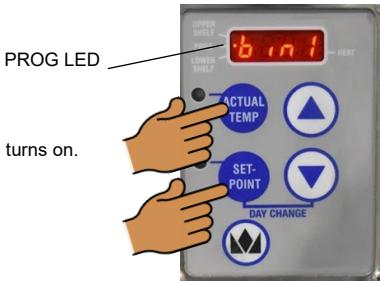
To check the bin address, press and hold the **ACTUAL TEMP** and **SETPOINT** buttons. The display will show the bin address.

Default for a new address is **bin1**.



#### 2 To change a bin address, disconnect power to the unit and wait 10 seconds. Reconnect power to the unit and immediately press and hold the **ACTUAL TEMP** and **SETPOINT** buttons.

**NOTE:** Continue to hold the buttons until **PROG LED** turns on.



#### 3 Use the **UP** or **DOWN** Arrow button to scroll to the desired address. Press the **PRINCE CASTLE CROWN** button to store the new address.

Available addresses are:  
**bin1** thru **bin6**,  
**bin1** will always be used.



#### 4 Set Timer Bar addresses.

Since each bin is addressed **bin1**, the bottom bar on each bin will be addressed **bar2**. If there is an upper bar on a bin, it will be addressed **bar3**.

Remember: if there are bars on the back of the unit, they do not need to be addressed separately, they follow the front.

#### 5 To check the timer address, press and hold the **PRINCE CASTLE LOGO** button on the button bar and the **DOWN** Arrow button. The current timer address will be displayed in the far right timer display. To change the timer address, proceed to Step 6.



#### 6 To change the timer address, disconnect power to the unit and wait 10 seconds. Reconnect power to the unit and immediately.

Press and hold the **PRINCE CASTLE LOGO** button on the button bar and the **DOWN** Arrow button until the display shows **SET ADDR ↑ ENTR BAR2**. The address number will blink on/off.



#### 7 Use the **UP** or **DOWN** Arrow button to scroll to the desired address. Press the **ENTER** button to store the new address and return to normal operating mode. Press the **PRINCE CASTLE LOGO** button on the button bar to save the setting.

**Available addresses are: Bar2 thru Bar7**

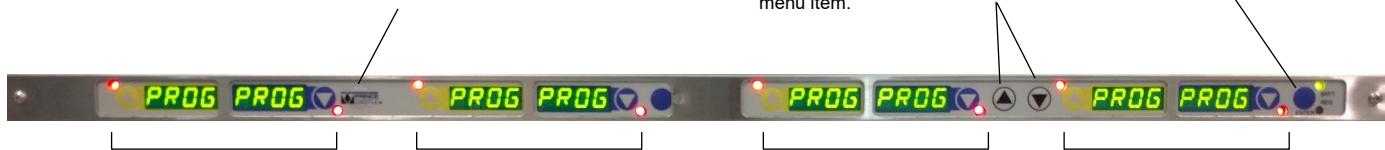


**NOTE: Bar addresses are numbered from the bottom up**

## Setting Product Location (Standalone Mode)

### 1 To change a menu selection for a specific pan cavity, use the following steps:

A. Press and hold the **PRINCE CASTLE LOGO** button for 6 seconds.  
All Pan displays will show **PROG**. All LED Timers will be **RED**.



C. Press the **UP** or **DOWN** Arrow button to scroll to the desired menu item.

D. Press the **ENTER** button to select the menu item.

B. Press a Pan Arrow button to change the menu. The **LED Timer** will change to **YELLOW** and the display will change from **PROG** to the assigned menu item.

E. Repeat steps A – D as required for other Pan displays. Press the PRINCE CASTLE LOGO button to exit the Program Mode.

**NOTE:** A pan may be set as "not used" by assigning "----" as its product.

**NOTE:** Setting a pan to a particular product will automatically change the other pan in that zone to the same product.

### 2 To shut down the unit, turn the Power On/Off switch (A) to **OFF** position.



## Cleaning

### **WARNING:**

Before performing any maintenance, turn the power switch to the OFF position and unplug the power cord from the electrical receptacle.

### **CAUTION:**

This unit is not watertight. Do not clean with a water jet/jet spray. Do not immerse the unit in water.

1. Turn the unit off and unplug the power cord from electrical receptacle.
2. Remove the pans and covers. Wipe all parts and unit with a damp cloth. **DO NOT** use a green Scotch Bright pad cleaner, ice or water.

# Extend Holding Bin

## EHB Series



### Setting the Temperature

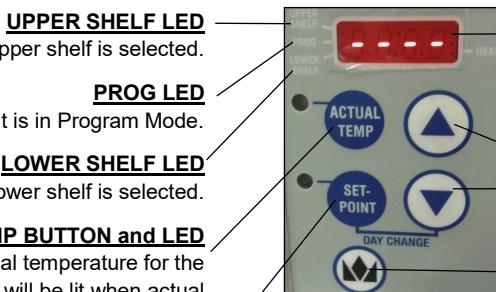
The unit has multiple shelves, each with both an upper and lower heater for each zone.

The heaters follow the default setpoints of the preset products for each pan

Each heater has a programmable range of 150° – 275°F (66° – 135°C).

Use the instructions below and the following steps to set the setpoint temperatures for each heater.

**NOTE:** Only applicable in stand-alone mode when not connected to Product Management system, setpoint cannot be changed when connected to a kitchen manager.



**UPPER SHELF LED**  
This LED will be lit to indicate upper shelf is selected.

**PROG LED**  
This LED will be lit to indicate unit is in Program Mode.

**LOWER SHELF LED**  
This LED will be lit to indicate lower shelf is selected.

**ACTUAL TEMP and LED**  
Press to display actual temperature for the selected heater. LED will be lit when actual temperature is displayed.

**SETPOINT BUTTON and LED**  
Press to display setpoint temperature of a selected heater. LED will be lit when setpoint temperature is displayed.

#### CAUTION:

DISPLAYED TEMPERATURES ARE HEATER TEMPERATURES AND DO NOT INDICATE ACTUAL FOOD TEMPERATURES.

#### TEMPERATURE DISPLAY

A, B, C, D ( E, F ) = ZONES  
Upper and Lower Heater

#### UP/DOWN ARROW BUTTONS

Used with other Buttons to scroll through heater and temperature selections.

#### CROWN BUTTON

Press to enter temperature selections.

**NOTE:** To reset all calibrations to the factory settings, turn the unit off, then press and hold the UP and DOWN Arrow buttons simultaneously while turning the unit back on. A "P" will appear in the display and all calibrations will be reset to original factory settings.

- 1 The **SET PRODUCT TEMP** menu is used to change the Hold and Cook-More times. Press and hold the **PRINCE CASTLE LOGO** button on the button bar, then immediately press and hold the **MENU/ENTER** button on the button bar until the display shows one of six programming menus.....(hold for about 5 seconds) Use the **UP** or **DOWN** Arrow button to scroll to the **SET TEMP** ↑ ↓ **ENTR** (Set Product Temperature) menu.



- 2 Press and release the **MENU/ENTER** button to enter the programming menu, the display should then read **SEL TEMP XXXX** ↑ ↓ (the XXXX is where the product abbreviation is displayed). Use the **UP** and **DOWN** arrows to navigate to the desired product.



- 3 Press the **MENU/ENTER** button to select that product profile to update, the display will read **SET UPR XXXX ####** ↑ ↓ the XXXX is where the product abbreviation is displayed, and #### is the temperature. Use the **UP** and **DOWN** arrows to set the temperature of the upper heater of that zone.

Confirm setpoint by pressing **MENU/ENTER**



### Setting the Temperature (Continued)

**4** The display will now show **SET LWR XXXX ####** ↑ ↓. Use the **UP** and **DOWN** arrows to set the temperature of the Lower heater of that zone. Press **MENU/ENTER** to confirm setpoint temperature.



**NOTE:** Changing the profile on one bar in a linked system of bin (s) is enough, it does not need to be changed on all bars in the system.

**5** Press **PRINCE CASTLE LOGO BUTTON** to save the setpoints. Repeat steps 2-5 for all necessary profile upgrades.



**NOTE:** Setpoints are displayed on the front display board, and should be updated according to the product at this point.

### Calibrating Heaters

**1** Use the following steps to calibrate the individual heaters

Select **ACTUAL TEMP**. Press the **UP** or **DOWN** Arrow button until the desired shelf LED and upper or lower heater is selected.

**NOTE:** Allow sufficient amount of time for temperatures to stabilize before



**2** Take a temperature reading within the shelf near the center of each heater surface.

**WARNING: HOT SURFACES**  
Use caution when taking temperature readings within the shelf.

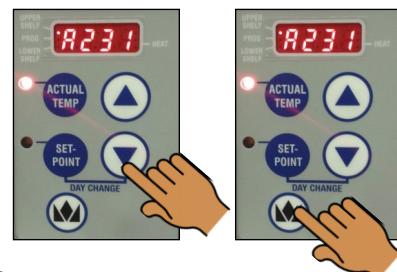


**NOTE:** Use an independent temperature meter (not supplied).

**3** Press and hold the **CROWN BUTTON** and **ACTUAL TEMP** buttons for 5 seconds. The colon (:) LED indicator will light. The temperature displayed is the actual heater temperature sensed by the controller.



**4** Press the **UP** or **DOWN** Arrow button until the temperature displayed matches the reading obtained in Step 2. Press the **CROWN BUTTON** to save the temperature value and exit the Calibration Mode. To undo changes before saving, press the **SETPOINT** button. This clears the offsets entered.



**NOTE:** On the 3x4 unit, during calibration, a **HOLD** message will appear on the display. When it does, release all buttons until it disappears, then continue.

### Selecting Day Part

**1** Press and hold the **SETPOINT** button and the **DOWN** Arrow button for 3 seconds to change Day Part to change the menu.

**NOTE:** Only applicable in stand-alone mode when not connected to Product Management system.

**NOTE:** The display will show **DAY #** if the daypart has been successfully changed.

**NOTE:** Whenever a bin is powered **ON** it defaults to **DAY PART 1** no matter what time of day it is.



**\*\*For more info, see Menu Setup Manual 540-550\*\***

# Extend Holding Bin

## EHB Series



### Changing the Hold and Cook-More Times (Standalone Mode)

1 The **SET PRODUCT TIME** menu is used to change the Hold and Cook-More times.

Press and hold the **PRINCE CASTLE LOGO** button on the button bar, then immediately press and hold the **ENTER** button until the display shows one of six programming menus. Use the **UP** or **DOWN** Arrow button to scroll to the **PROD TIME**  $\uparrow$  **ENTR** (Set Product Time) menu.



2 Press and release the **ENTER** button to enter the Set Product Time menu. The display will show **BURG TIME**  $\uparrow$  **ENTR**.

Use the **UP** or **DOWN** Arrow button to scroll through the list of products.

When the desired product is displayed, press the **ENTER** button to select it.



**NOTE:** Holding the **UP** or **DOWN** Arrow button for longer than 2 seconds will cause the product list to automatically scroll up or down.

3 The display will show **90**  $\uparrow$  **ENTR**.



Use the **UP** or **DOWN** Arrow button to scroll to the desired Hold time. When the desired Hold time is displayed, press the **ENTER** button to save the desired Hold time.



**NOTE:** Hold time cannot be reduced to less than the Cook-More time plus one minute. **NOTE:** All times are displayed in minutes only. For example, 2 and half hours is displayed as 150

4 The display will show **COOK 03**  $\uparrow$  **ENTR**.



Use the **UP** or **DOWN** Arrow button to scroll to the desired Cook-More time. When the desired Cook-More time is displayed, press the **ENTER** button to save it.



**NOTE:** Cook-More time cannot be increased to more than the Hold time, minus one minute.

5 The display will show **BURG TIME**  $\uparrow$  **ENTR**. Repeat Steps 2 – 4 for any other product.

Press and release the **PRINCE CASTLE LOGO** button at any time to exit the Program Mode and return to the Run Mode.

**NOTE:** If the **ENTER** button has not been pressed to save any changes, the program will revert to the original values.



## Changing Product Names (Standalone Mode)

**1** The **EDIT PRODUCT NAME** menu is used to change a default product name to one of your own choosing. Press and hold the **PRINCE CASTLE LOGO** button on the button bar, then immediately press and hold the **ENTER** button until the display shows one of six programming menus. Use the **UP** or **DOWN** Arrow button to scroll to the **PROD NAME ↑ ↓ ENTR** (Edit Product Name) menu.



*NOTE: Only applicable in stand-alone mode when not connected to Product Management system.*

*NOTE: The default menu items and names are listed on page 13.*

**2** Press and release the **ENTER** button to enter the Edit Product Name menu. Use the **UP** or **DOWN** Arrow button to scroll through the list of products. When the desired product is displayed, press the **ENTER** button to select it. The first letter (in this case, the **B**) will start blinking.



**3** To change the blinking **B**, use the **UP** or **DOWN** Arrow button to scroll to the desired letter/number/symbol. When the desired selection is displayed, press the **PAN** Arrow button to move to the next digit. Repeat for all digits.



*NOTE: Holding the **UP** or **DOWN** Arrow button for longer than 2 seconds will cause the display to automatically scroll up or down.*

**4** When all four digits have been changed, press the **ENTER** button to select the new name.



**5** The display will show **PROD NAME ↑ ↓ ENTR**. Repeat Steps 2 – 4 for any other product. Press and release the **PRINCE CASTLE LOGO** button at any time to exit the Program Mode and return to the Run Mode.



*NOTE: If the **ENTER** button has not been pressed to save any changes, the program will revert to the original names.*

# Extend Holding Bin

## EHB Series



### Changing Temperature Scale (Standalone Mode)

- 1 The **SET F/C** menu is used to change the temperature scale. Press and hold the **PRINCE CASTLE LOGO** button on the button bar, then immediately press and hold the **ENTER** button until the display shows one of six programming menus. Use the **UP** or **DOWN** Arrow button to scroll to the **SET F/C XXXX ↑ ↓ ENTR** (Edit Product Name) menu.



- 2 Press the **ENTER** button to enter the menu. Bar will display **SET DEGR F/C ↑ ↓ ENTR** and either the **F** or **C** will be blinking.



- 3 Use the **UP** and **DOWN** arrows to select the desired temperature mode (the selected mode will blink). Press the **ENTER** button to confirm the selection. Press the **PRINCE CASTLE LOGO** button to save the setting.



### Adjusting Alarm Volume (Standalone Mode)

- 1 The **SET VOLUME** menu is used to change the alarm volume. Press and hold the **PRINCE CASTLE LOGO** button on the button bar, then immediately press and hold the **ENTER** button until the display shows one of six programming menus. Use the **UP** or **DOWN** Arrow button to scroll to the **SET VOL ↑ ↓ ENTR** (Set Volume) menu.



**NOTE:** Only applicable in stand-alone mode when not connected to Product Management system.

- 2 A timer alarm is included to sound after a hold timer is complete.

The volume is adjustable from level 0-3.

Once the menu is on the bar, press **ENTER** to enter the menu



- 3 Scroll to the desired volume setting and hit **ENTER** to accept.

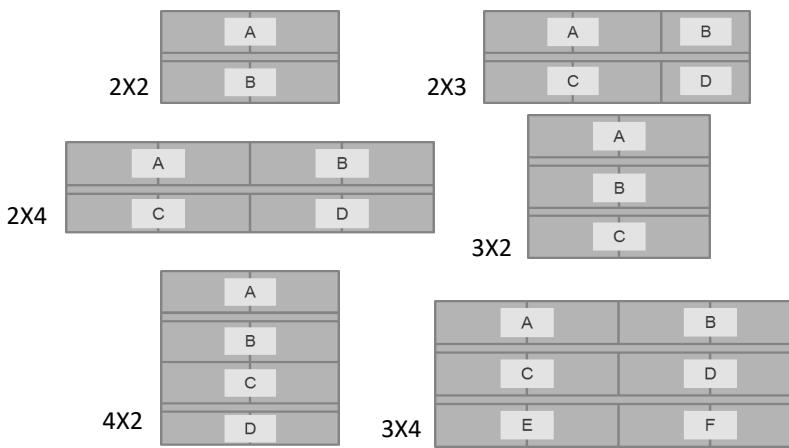


## Default Menu Items

BREAKFAST PRODUCTS					
DISPLAY NAME	PRODUCT NAME	HOLD TIME (MINUTES)	COOK MORE TIME (MINUTES)	TOP TEMP (°F)	BOTTOM TEMP (°F)
EGGS	SANDWICH EGGS	90	5	230	200
PCAK	PANCAKES	30	2	180	170
BISC	BISCUIT	60	18	200	200
FTST	FRENCH TOAST	90	2	245	230
SAUS	SAUSAGE PATTY	120	2	235	215
BURGER PRODUCTS					
DISPLAY NAME	PRODUCT NAME	HOLD TIME (MINUTES)	COOK MORE TIME (MINUTES)	TOP TEMP (°F)	BOTTOM TEMP (°F)
BURG	BURGER	90	3	240	220
WHPR	WHOPPER	90	3	240	220
WHJR	WHOPPER JR.	90	3	240	220
CHICKEN PRODUCTS					
DISPLAY NAME	PRODUCT NAME	HOLD TIME (MINUTES)	COOK MORE TIME (MINUTES)	TOP TEMP (°F)	BOTTOM TEMP (°F)
BCKN	BREAKFAST CHICKEN	60	4	250	220
CFRY	CHICKEN FRIES	60	2	180	160
OCS	ORIGINAL CHICKEN	90	4	250	220
CKJR	CRISPY CHICKEN JR.	60	3	260	235
CRIS	CRISPY CHICKEN	30	7	190	172
GCHK	GRILLED CHICKEN	90	3	240	215
CNUG	CHICKEN NUGGET	60	3	260	235
JFRY	JALAPENO CHK. FRIES	60	2	180	160
OTHER PRODUCTS					
DISPLAY NAME	PRODUCT NAME	HOLD TIME (MINUTES)	COOK MORE TIME (MINUTES)	TOP TEMP (°F)	BOTTOM TEMP (°F)
CZST	CHEESE STICK	60	4	200	200
RGCH	CHILI 10 OZ.	240	3	210	200
SMCH	CHILI 4 OZ.	240	3	210	200
FISH	FISH	60	5	260	235
GDOG	GRILLED DOG	90	3	240	200

## Zones

All bin configurations are set up with zones, which correspond to a set of heaters that work together to hold the product. A single product can be programmed into each zone.



The timer bars are equipped with this knowledge. If the product in one slot of a zone is changed, the other slot will automatically change to that product as well.

# Extend Holding Bin

## EHB Series



### Troubleshooting



**WARNING:** To avoid personal injury and possible damage to the unit, troubleshooting and repair of electrical equipment should be performed by qualified service personnel. This unit should be unplugged when servicing. Except when electrical tests are required. Use extreme caution during electrical circuit tests as live circuits may be exposed.

Problem	Probable Cause	Solution
No Power	Power switch is turned off, Power cord is not plugged in.	Turn power switch to ON position, Ensure power cord is connected to proper receptacle
Unit will not heat up	Wrong power cord, loose connection on power switch and/or heater	<b>CALL TECH SUPPORT</b>  <b>1-800-722-7853</b>
Unit heats up but timer bars do not work	Timer bar wiring disconnected, timer bar is defective	<b>CALL TECH SUPPORT</b>  <b>1-800-722-7853</b>
Unit under/over heats	Check temperature settings	<b>CALL TECH SUPPORT</b>  <b>1-800-722-7853</b>
Display flashes <b>OPN</b> and <b>REL</b>	Open relay, circuit or heater inoperable	<b>CALL TECH SUPPORT</b>  <b>1-800-722-7853</b>
Display flashes <b>SHR</b> and <b>REL</b>	Shorted relay, circuit inoperable, open heater, unplugged ribbon cable	<b>CALL TECH SUPPORT</b>  <b>1-800-722-7853</b>
Display shows <b>HHH</b> for extended period and heat- er surface temperature is hot	Temperature is above 300 F (149 C), Abnormal operation	<b>CALL TECH SUPPORT</b>  <b>1-800-722-7853</b>
Display shows <b>HOLD</b>	Only displayed on a 3X4 Bin display board, when the operator changes the bin address or during calibration	<b>HOLD</b> message means the 2 PC boards in the bin are communicating, wait until the message disappears
Display shows <b>WAIT</b>	When in stand alone mode and the oper- ator makes change to the product profile	Wait until the message disappears
Display shows <b>INIT</b>	When switching from Chef to stand alone mode	Bin is learning Chef menus, wait for message to disappear
Timer bar displays <b>COMM DOWN</b>	Bin is not communicating with Chef	Refer to the Chef-EHB Setup Guide at <a href="http://bk.princecastle.com">bk.princecastle.com</a> .

For all technical support in North America, please contact **PRINCE CASTLE LLC 1-800-722-7853**  
For technical support worldwide, contact your local service representative / installer.

## Diagnostics

### DIAGNOSTICS

For all diagnostic messages on the holding bin, the message will appear on the timer bar located at the pan that is triggering the message.

The message is a two-word message that will cycle through on the timer bar in addition to the product name at that pan location.

1. WARM | UP | XXXX – When turning on holding bin the warm up message will appear until heaters reach within 15°F set point.
  - a. Cleared when within 15°F of the set point.
2. HTR | OFF | XXXX – Heater off message appears when both the upper and lower heaters are off.
  - a. Cleared when heater is turned on.
3. HTR | LOW | XXXX – Heater low appears if the temperature falls 15°F below the set point.
  - a. Cleared when temperature is back in range. If not cleared, would require a service technician to repair.
4. HTR | HIGH | XXXX – Heater high appears if the heater is above 285°F for 20 minutes.
  - a. Cleared when temperature is back in range. If not cleared, would require a service technician to repair.
5. RLY | SHRT | XXXX – Relay short error occurs when there is a thermocouple or heater problem.
  - a. Bin requires service to further troubleshoot and repair.
6. RLY | OPEN | XXXX – Relay open error occurs when there is a thermocouple or heater problem.
  - a. Bin requires service to further troubleshoot and repair.
7. COMM | DOWN | XXXX – Communication down error occurs when the temperature data is not being properly communicated.
  - a. Check that the Sicom system is connected properly. Requires service technician to troubleshoot.

### USB Update Procedure (all bins except the 3Hx4W)

1. First, un-plug any external cables from the PHU. These devices will interfere with the timer bar boot loading process.
2. Place the update files on the USB flash drive in the main directory (Do not put them in a folder on the flash drive). There are five files that you will need to put on the drive. Two for the controller board, **mainbin.hex** and **DHBFWBIN.TXT**. Three for the timer bars, **mainbar.hex**, **auxbar.hex** and **DHBFWBAR.TXT**.
3. Once all files are on USB drive, turn power off to bin and place the USB drive with the files into USB port on the front of the bin.
4. While holding down crown button on front right side of the bin, above the power switch, turn the power to the bin on.
5. Keeping the crown button pressed, wait for the "BL" (boot load) message to appear on the screen. Release the button approx. 5 seconds after the "BL" message appears or once the USB stick light begins to flash.
6. Wait for the display to show:
 

a. (blank while upgrading main bin firmware)	e. BL00 (0 timer bars left to upgrade)
b. BL00 (searching for timer bars to upgrade)	f. BN02 (2 timer bars detected and done with programming)
c. BL02 (2 timer bars left to upgrade)	
d. BL01 (1 timer bar left to upgrade)	
7. You can check the version number on the timer bars by pressing the Prince Castle logo button and the down button on timer bar.

### USB Update Procedure (3Hx4W Bin Only)

1. The 3x4 bin requires two sets of files for the update, 10 files total. You will have a set of 5 files for the lower board and 5 files for the upper board. You can use one USB flash drive; however you can only have one set of 5 files on the USB drive at one time. The 5 files have the same names and therefore can not be kept on the USB drive at the same time.
2. Go through steps 1-7 as above placing the USB drive in the USB port labeled 1 on the front of the holding bin. When the bin is done updating, place the second set of files on the USB drive.
3. Once all files are on the USB drive, turn the power off to the bin and place the USB drive with the files into the USB port labeled 2 on the front of the bin.
4. While holding down crown button on front right side of the bin, above the power switch, turn the power to the bin on.
5. Keeping the crown button pressed, wait for the "BL" message, "BLnU" message, and the BL00 message

(THIS WILL TAKE APPROX. 15 SECONDS) to appear on screen, then release the crown button.

6. Observe the top row of timer bars
  - a. The top row will show dashed lines (indicating that it has entered the boot loader).
  - b. The top row will show Prince Castle boot up, before going back into dashed lines display (boot loader for second time).
  - c. The top row will go again to the Prince Castle boot-up and back to the dashes a third and final time.
  - d. The Prince Castle boot-up will show again and the update is done.
7. You can check the version number on the timer bars (top and bottom) by pressing the Prince Castle logo button and the down button on timer bar.

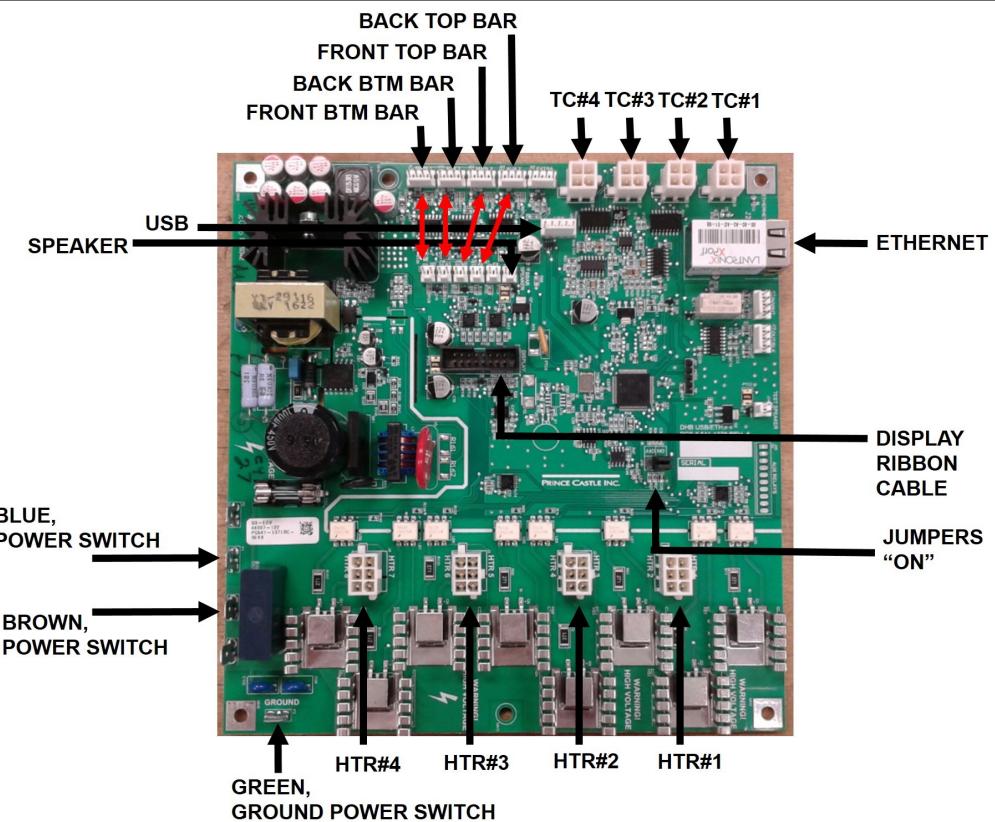
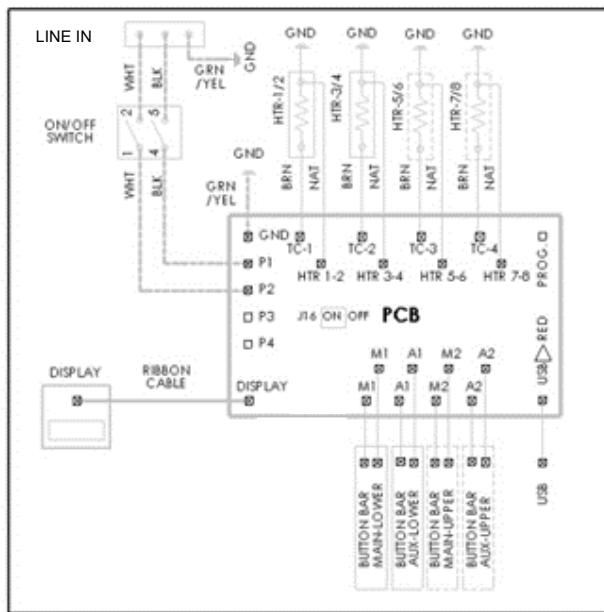
# Extend Holding Bin

## EHB Series



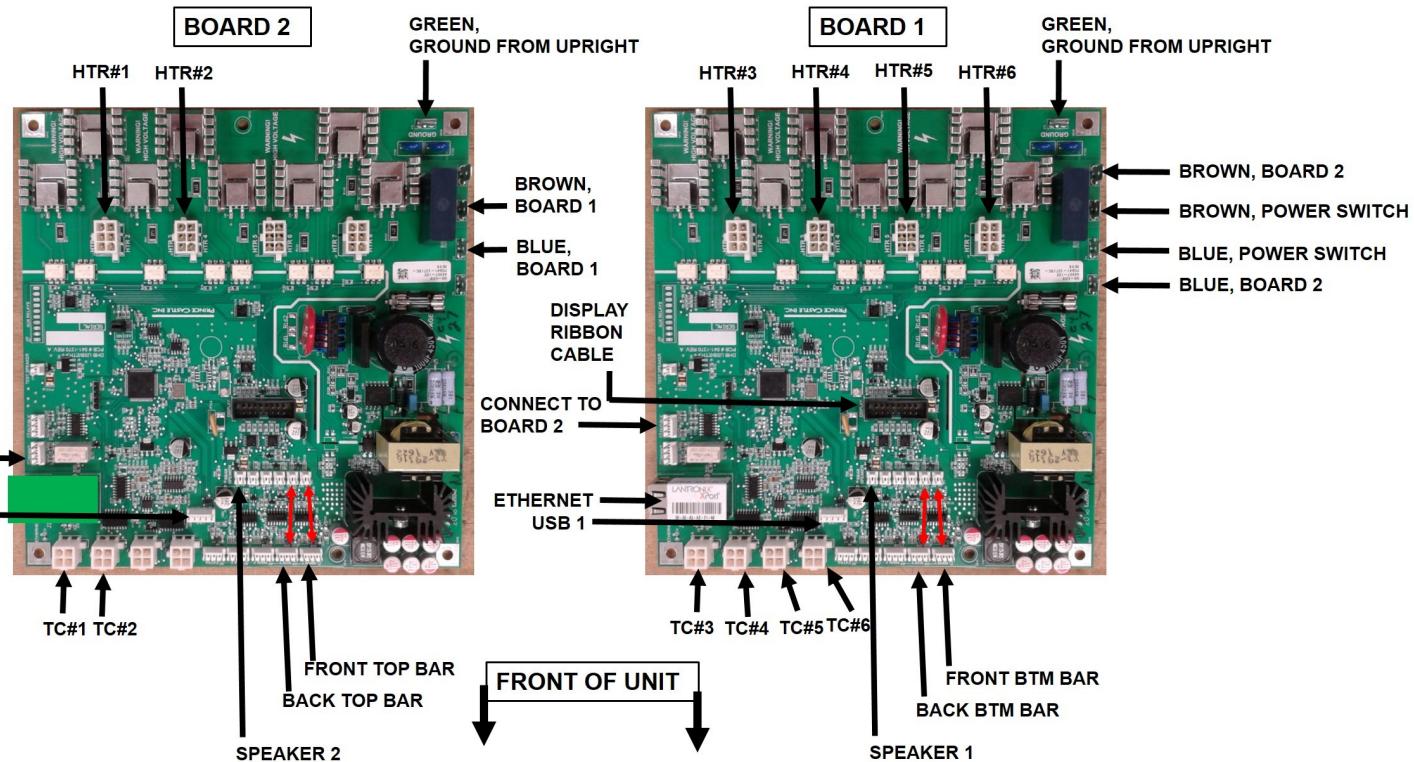
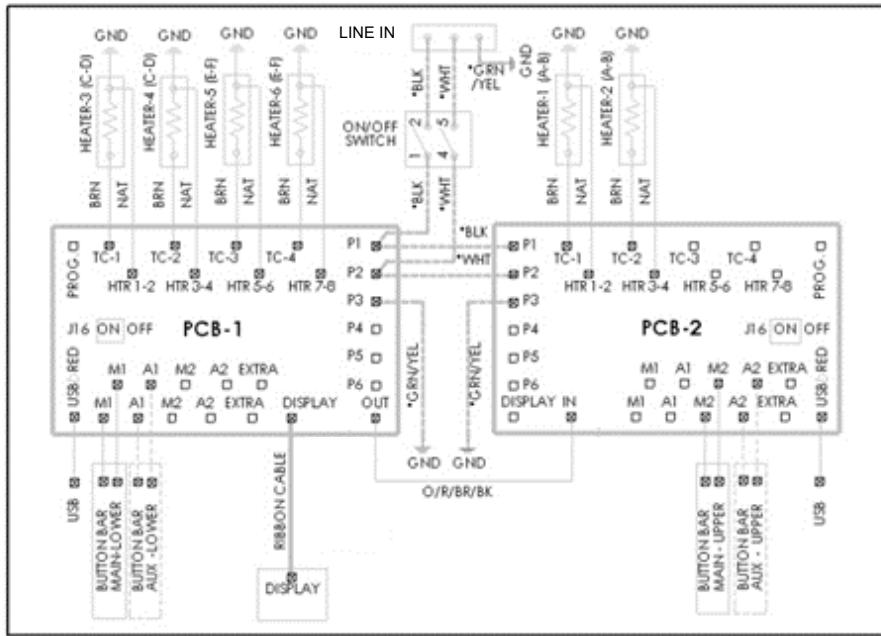
### Wiring Diagrams

This Wiring diagram is used in all configurations except the 3X4



Wiring Diagrams

This wiring diagram is used in the 3x4 configuration only

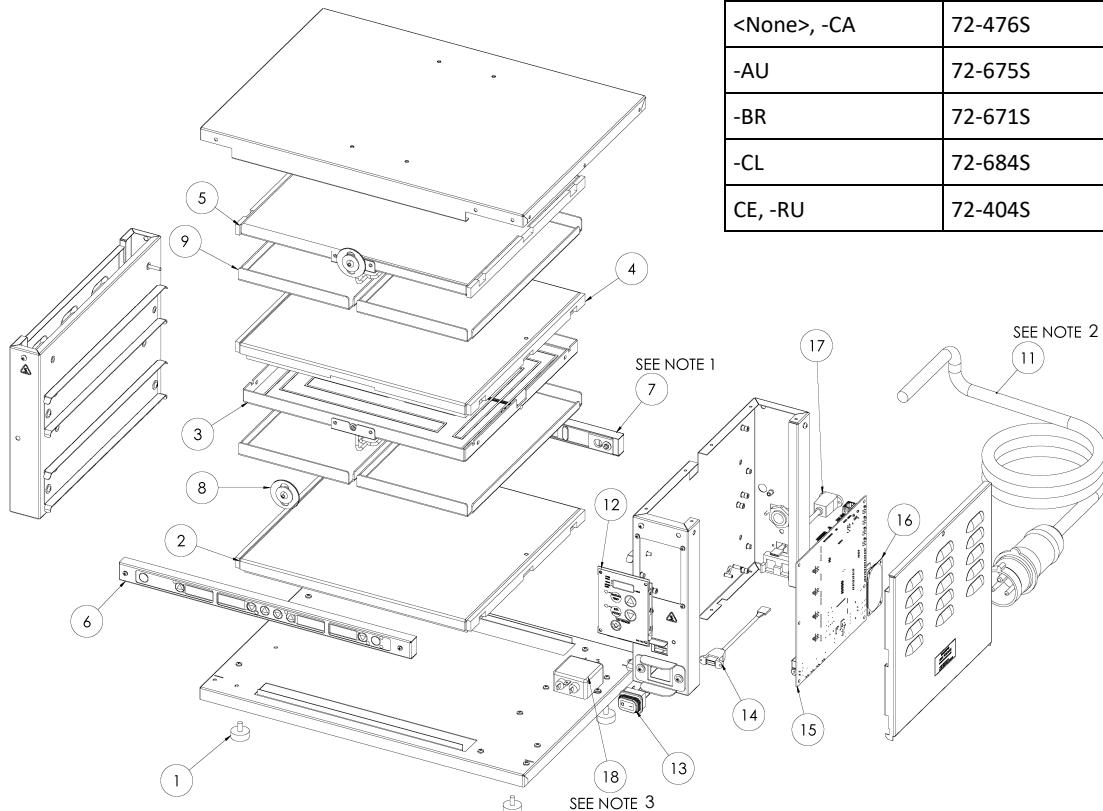


# Extend Holding Bin

## EHB Series

**PRINCECASTLE**  
MARMON FOODSERVICE TECHNOLOGIES  
A BERKSHIRE HATHAWAY COMPANY

### Exploded View



EHB22A

Model Suffix	Power Cord
<None>, -CA	72-476S
-AU	72-675S
-BR	72-671S
-CL	72-684S
CE, -RU	72-404S

ITEM NO.	PART NUMBER	DESCRIPTION
1	197-232S	FOOT (4 PACK)
2	540-1107S	HEATER ASSY LOWER
3	540-1109S	HEATER ASSY, UPPER, 2W
4	540-1111S	HEATER ASSY, LOWER TOP SHELF 2W
5	540-1120S	UPPER HEATER TOP SHELF
6	510-242S*	TIMER BAR, 4 MAIN

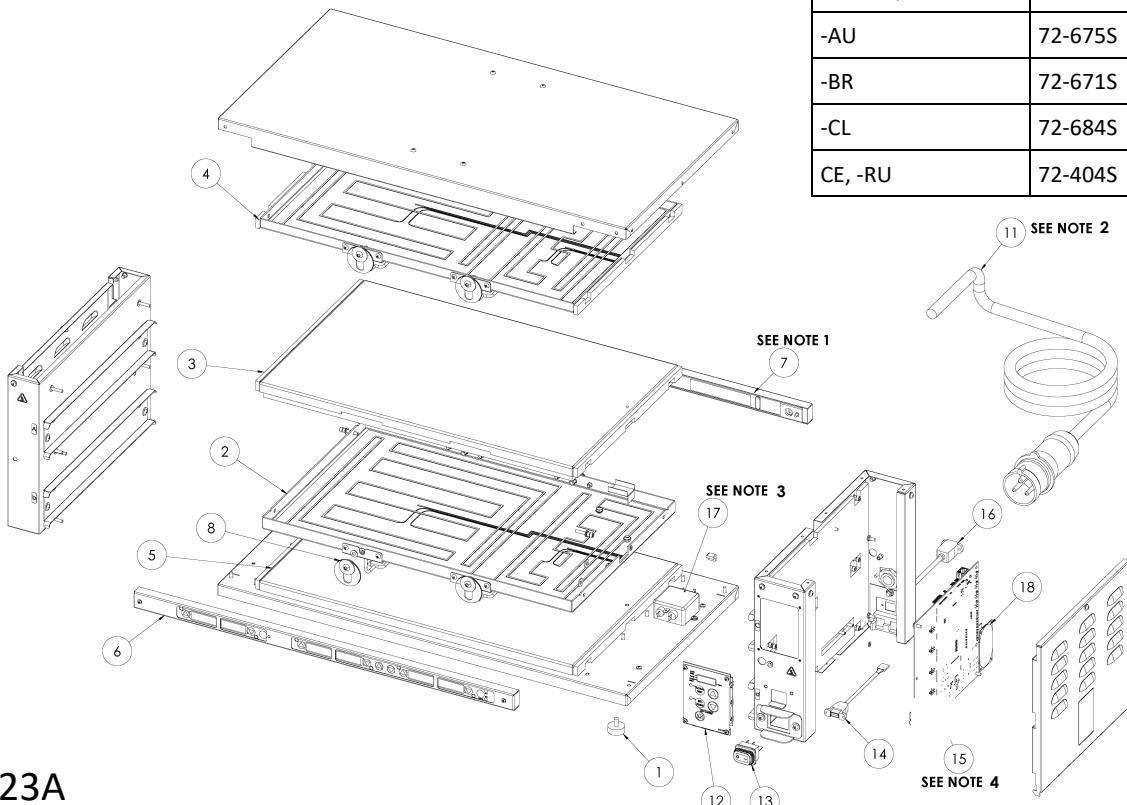
ITEM	PART NUM-	DESCRIPTION
7	510-243S*	SERVICE KIT BB 4CH AUX
8	540-1158S	LATCH, CATCH
9	540-1251S	LID (4 PACK)
11	USE TABLE	POWER CORD
12	540-1215S*	OVERLAY AND DISPLAY
13	78-184S	POWER SWITCH
14	95-1819S	USB CORD
15	540-1263S*	PCB, CONTROL BOARD

ITEM NO.	PART NUMBER	DESCRIPTION
16	88-709-2-11S	SPEAKER
17	95-2011S	ETHERNET CONNECTOR
18	88-824S	LINE FILTER

\*Recommended spares for stocking

1. AUX TIMER BAR (510-243S) USED ONLY ON EHB22A AND EHB22ACE.
2. REFER TO POWER CORD TABLE ABOVE.
3. LINE FILTER (88-824S) ONLY USED ON EHB22ACE AND EHB22CE.

**Exploded View**



**EHB23A**

ITEM NO.	PART NUMBER	DESCRIPTION
1	197-232S	FOOT (4 PACK)
2	540-1118S	HEATER ASSY LOWER
3	540-1123S	HEATER ASSY, TOP SHELF LOWER 3W
4	540-1116S	HEATER ASSY, UPPER TOP 3W
5	540-1122S	LOWER HEATER BASE
6	510-240S*	TIMER BAR, 6 MAIN

ITEM	PART NUM-	DESCRIPTION
7	510-241S*	SERVICE KIT BB 8CH AUX
8	540-1158S	LATCH, CATCH
9	540-1251S	LID (4 PACK) (NOT SHOWN)
11	USE TABLE	POWER CORD
12	540-1215S*	OVERLAY AND DISPLAY
13	78-184S	POWER SWITCH
14	95-1819S	USB CORD

ITEM NO.	PART NUM-BER	DESCRIPTION
15	540-1265S*	PCB, CONTROL BOARD
16	95-2011S	ETHERNET CONNECTOR
17	88-824S	POWER FILTER
18	88-709-2-11S	SPEAKER

\*Recommended spares for stocking

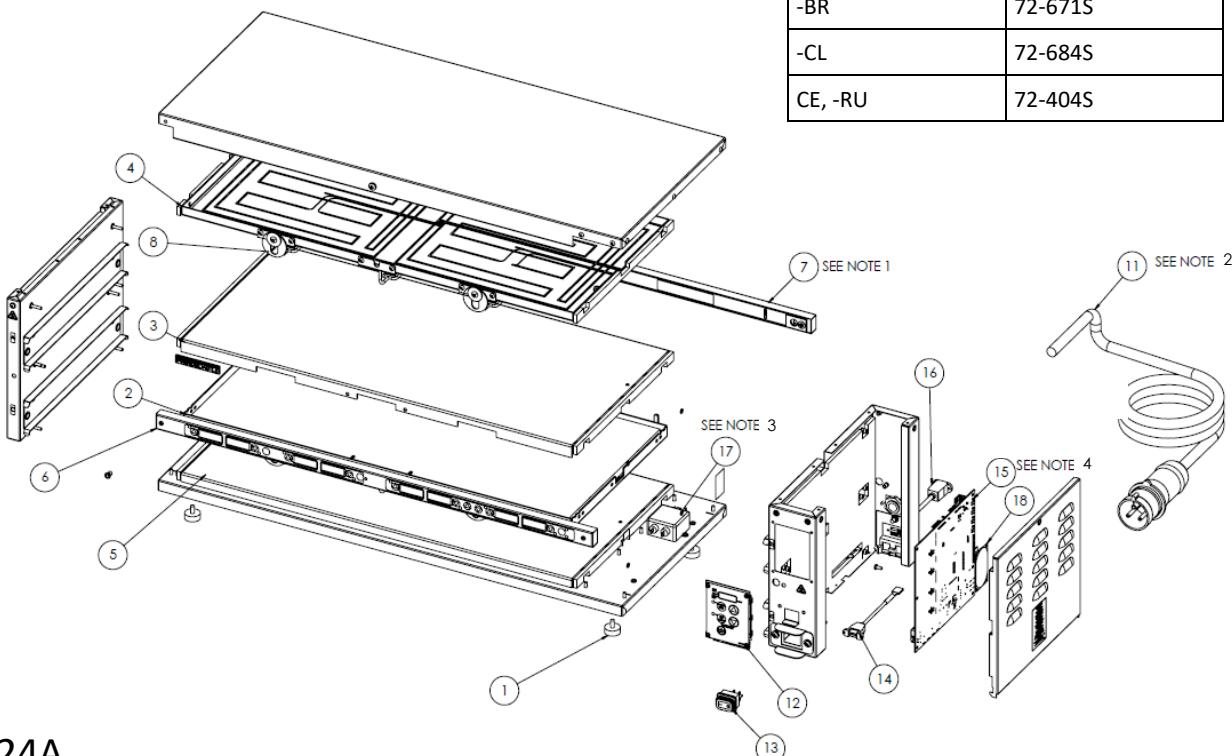
1. AUX TIMER BAR (510-241S) USED ONLY ON EHB23A.
2. REFER TO POWER CORD TABLE ABOVE.
3. LINE FILTER (88-824S) ONLY USED ON EHB23ACE AND EHB23CE.

# Extend Holding Bin

## EHB Series

**PRINCECASTLE**  
MARMON FOODSERVICE TECHNOLOGIES  
A BERKSHIRE HATHAWAY COMPANY

### Exploded View



**EHB24A**

ITEM NO.	PART NUMBER	DESCRIPTION
1	197-232S	FOOT (4 PACK)
2	540-1226S	HEATER ASSY LOWER
3	540-1224S	HEATER ASSY, TOP SHELF LOWER 4W
4	540-1222S	HEATER ASSY, UPPER TOP 4W
5	540-1072S	LOWER HEATER BASE
6	510-098S*	TIMER BAR, 8 MAIN

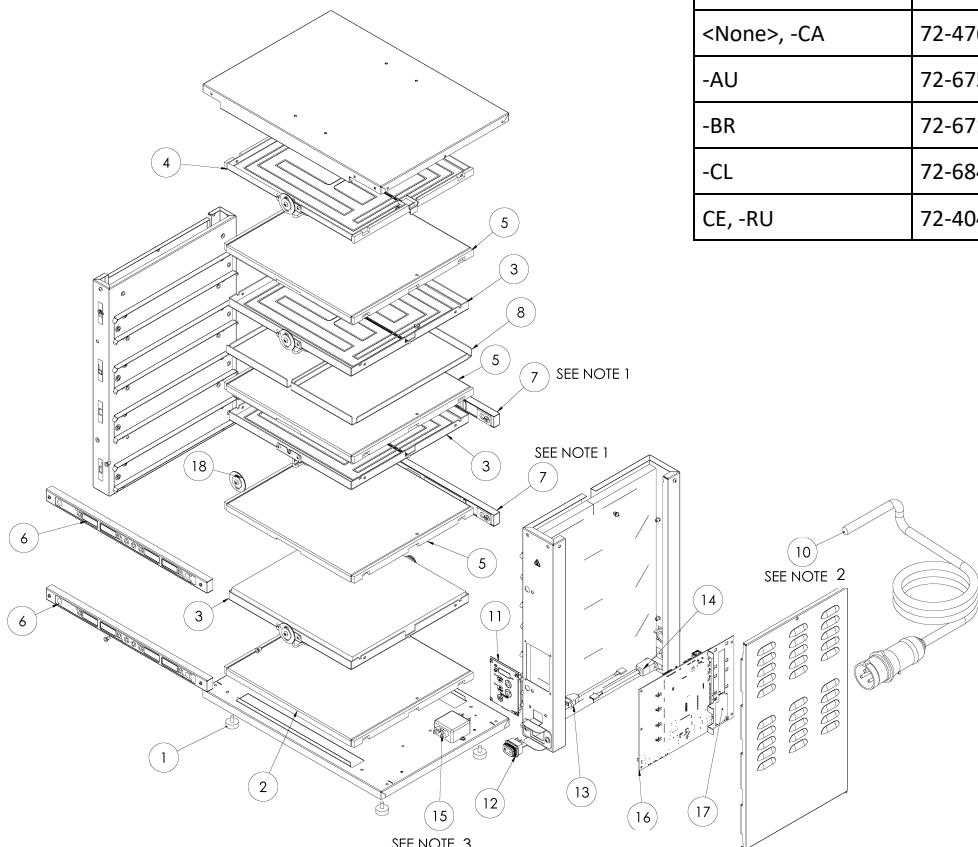
ITEM	PART NUMBER	DESCRIPTION
7	510-099S*	SERVICE KIT BB 8CH AUX
8	540-1158S	LATCH, CATCH
9	540-1251S	LID (4 PACK) (NOT SHOWN)
11	USE TABLE	POWER CORD
12	540-1215S*	OVERLAY AND DISPLAY
13	78-184S	POWER SWITCH
14	95-1819S	USB CORD

ITEM NO.	PART NUMBER	DESCRIPTION
15	540-1232S*	PCB, CONTROL BOARD
16	95-2011S	ETHERNET CONNECTOR
17	88-824S	POWER FILTER
18	88-709-2-11S	SPEAKER

\*Recommended spares for stocking

1. AUX TIMER BAR (510-099S) USED ONLY ON EHB24A.
2. REFER TO POWER CORD TABLE ABOVE.
3. LINE FILTER 88-824S ONLY USED ON EHB24ACE AND EHB24CE.

Exploded View



EHB42A

ITEM NO.	PART NUMBER	DESCRIPTION
1	197-232S	FOOT (4 PACK)
2	540-1107S	HEATER ASSY, LOWER PANEL, BOTTOM SHELF
3	540-1109S	HEATER ASSY, LOWER SHELF, UPPER 4x2
4	540-1120S	HEATER ASSY, UPPER SHELF, TOP 4X2
5	540-1111S	HEATER ASSY, UPPER SHELF BOTTOM 4X2

ITEM NO.	PART NUMBER	DESCRIPTION
6	510-242S*	TIMER BAR, 4 MAIN
7	510-243S*	SERVICE KIT BB 4CH AUX
8	540-1251S	LID (4 PACK)
10	540-1215S*	OVERLAY, DISPLAY BRD
11	78-184S	POWER SWITCH

ITEM NO.	PART NUMBER	DESCRIPTION
13	95-1819S	USB CORD
14	95-2011S	ETHERNET CORD
15	88-824S	POWER FILTER
16	540-1267S*	MAIN BOARD
17	88-709-2-11S	SPEAKER
18	540-1158S	KIT, LATCH CATCH

\*Recommended spares for stocking

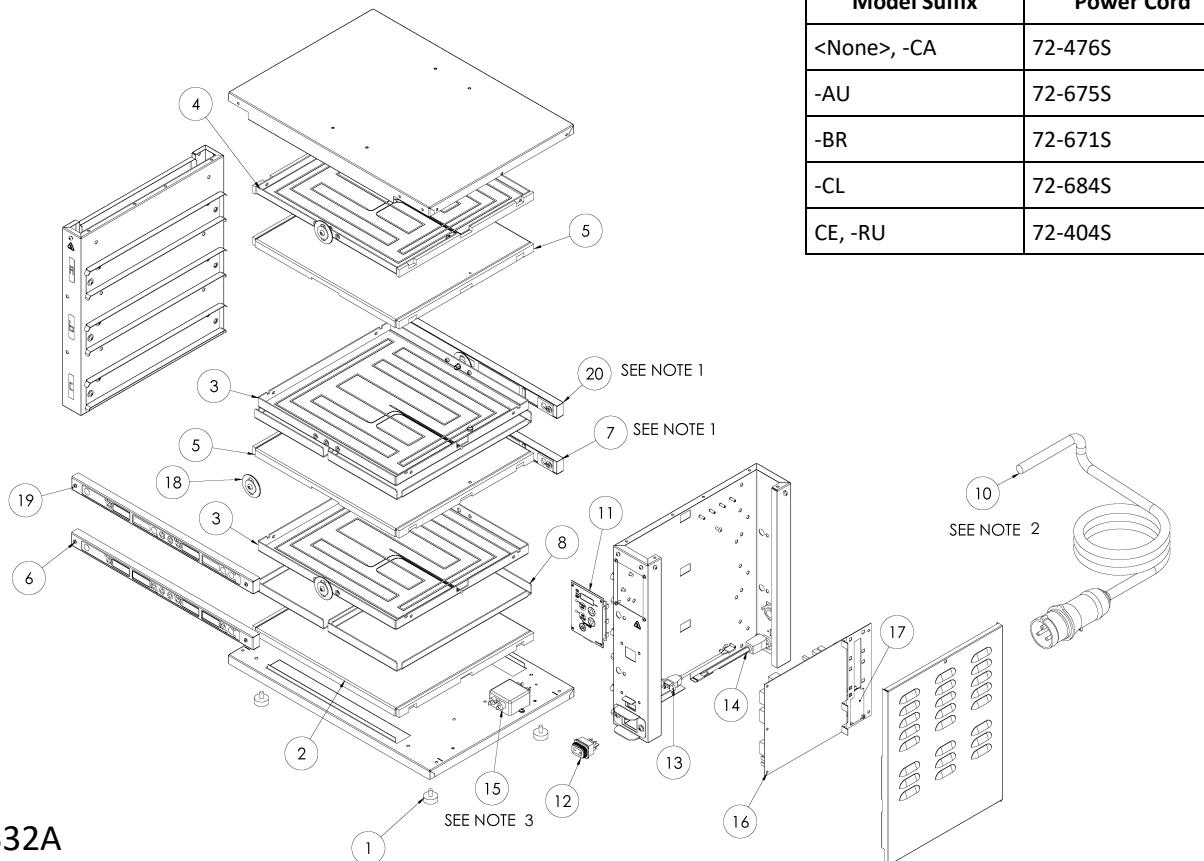
1. AUX TIMER BAR (510-243S) USED ONLY ON EHB42A.
2. REFER TO POWER CORD TABLE ABOVE.
3. LINE FILTER (88-824S) ONLY USED ON EHB42ACE AND EHB42CE.

# Extend Holding Bin

## EHB Series



### Exploded View



EHB32A

ITEM NO.	PART NUMBER	DESCRIPTION
1	197-232S	FOOT (4 PACK)
2	540-1107S	HEATER ASSY, LOWER PANEL, BOTTOM SHELF
3	540-1109S	HEATER ASSY, LOWER SHELF, UPPER 4x2
4	540-1120S	HEATER ASSY, UPPER SHELF, TOP 4X2
5	540-1111S	HEATER ASSY, UPPER SHELF BOTTOM 4X2
6	510-277S*	TIMER BAR, 4 MAIN

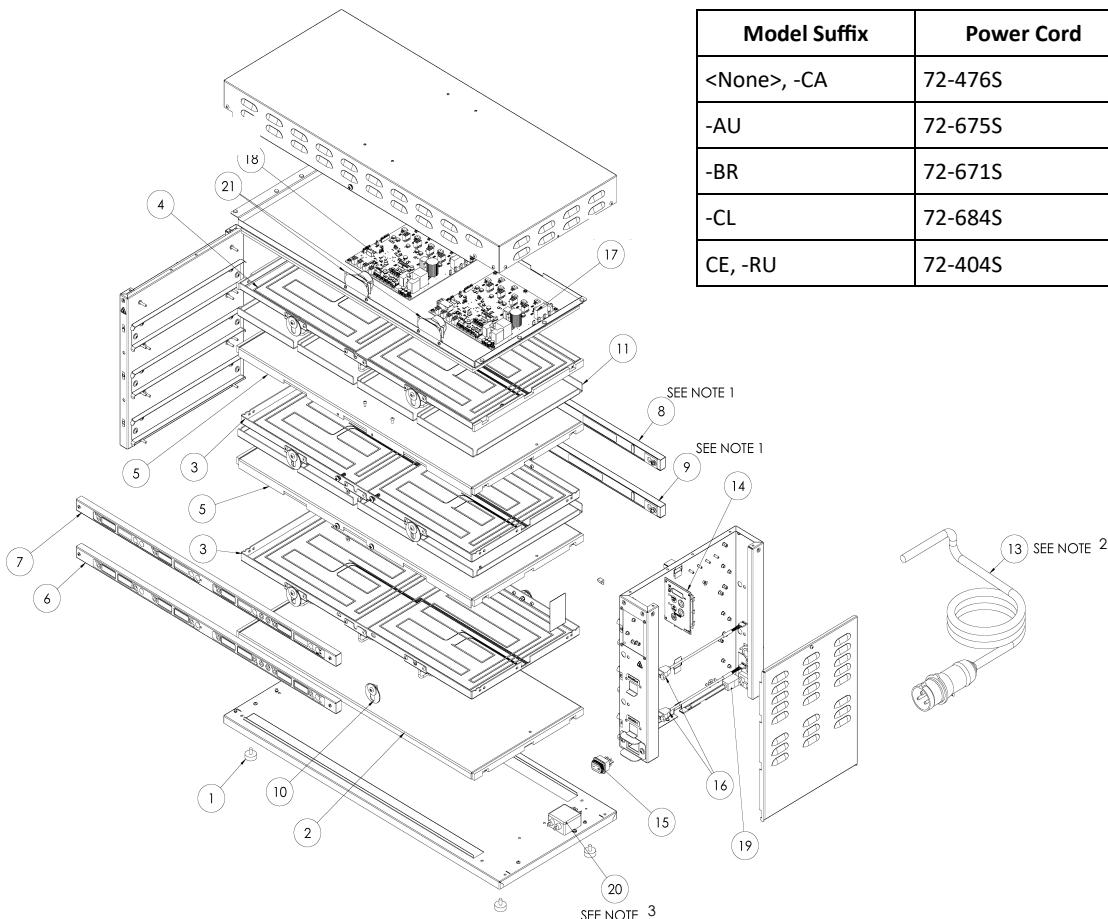
ITEM NO.	PART NUMBER	DESCRIPTION
7	510-278S*	SERVICE KIT BB 4CH AUX
8	540-1251S	LID (4 PACK)
10	USE TABLE	POWER CORD
11	540-1215S*	OVERLAY, DISPLAY BRD
12	78-184S	POWER SWITCH
13	95-1819S	USB CORD
14	95-2011S	ETHERNET CORD
15	88-824S	POWER FILTER

ITEM NO.	PART NUMBER	DESCRIPTION
16	540-1285S*	MAIN BOARD
17	88-709-2-11S	SPEAKER
18	540-1158S	KIT, LATCH CATCH
19	510-244S*	MAIN BB, UPPER
20	510-245S*	AUX BB UPPER

\*Recommended spares for stocking

1. AUX TIMER BAR (510-278S) AND (510-245S) USED ONLY ON EHB32A AND 32ACE.
2. REFER TO POWER CORD TABLE ABOVE.
3. LINE FILTER 88-824s ONLY USED ON EHB32ACE AND EHB32CE.

**Exploded View**



EHB34A

ITEM NO.	PART NUMBER	DESCRIPTION	ITEM NO.	PART NUMBER	DESCRIPTION	ITEM NO.	PART NUMBER	DESCRIPTION
1	197-232S	FOOT (4 PACK)	6	510-098S*	TIMER BAR, 8 MAIN	14	540-1215S*	OVERLAY, DISPLAY BRD
2	540-1198S	HEATER ASSY, LOWER PAN-	7	510-238S*	KIT BB 8CH MAIN TOP	15	78-184S	POWER SWITCH
3	540-1230S	HEATER ASSY, LOWER SHELF, UPPER 3X4	8	510-239S*	TIMER BAR 8 AUX TOP	16	95-1995S	USB CORD
4	540-1228S	HEATER ASSY, UPPER SHELF, TOP 3X4	9	510-099S*	TIMER BAR 8 AUX	17	540-1282S*	BOARD 1
5	540-1229S	HEATER ASSY, UPPER SHELF	10	540-1158S	KIT, LATCH CATCH	18	540-1283S*	BOARD 2
			11	540-1251S	LID (4 PACK)	19	95-2012S	ETHERNET CONNECTOR
			13	USE TABLE	POWER CORD	20	88-824S	POWER FILTER
						21	88-709-2-11S	SPEAKER

1. AUX TIMER BAR (510-099S) AND (510-239S) USED ONLY ON EHB34A.
2. REFER TO POWER CORD TABLE ABOVE.
3. LINE FILTER 88-824S ONLY USED ON EHB34ACE AND EHB34CE.

\*Recommended spares for stocking

## Extend Holding Bin

### EHB Series



REV.	DATE	DESC.
A	8/8/16	RELELASE
B	8/18/16	EHB CONROL BOARD # CHANGE
C	9/6/16	ADDED 3X2 PARTS LIST, VISOR MAIN BOARD PART #'S
D	9/22/16	CHANGED SPEAKER # ON 3X4
E	4/5/17	WARRANTY CORRECTED TO 3 YEARS PARTS, 2 YEARS LABOR; ADDED WIRING SCHEMATICS
F	5/10/17	UPDATED WITH CORRECTIONS
G	8/3/17	CHANGED POWER CORD & INLET
H	5/7/18	UPDATE PART REPLACEMENT KITS
J	8/20/18	REMOVED ANY MENTION OF KITCHEN MINDER
K	12/7/18	EXPLODED VIEWS: ADDED POWER CORD REFERENCE TABLE; RE- PLACED LID WITH PART NUMBER 540-1251S