Operation Manual



Extended Hold Bin DHB-BKE Series





ATTENTION: Read the instructions before using the machine.

LIMITED WARRANTY

This product is warranted to be free from defects in material and/or workmanship for a period of 3 years (repair parts) and 2 years (labor) from date of original installation, not to exceed 30 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 LLC) 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 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 Kitchen Minder, the Transfer and Menu functions are disabled on the button bar.

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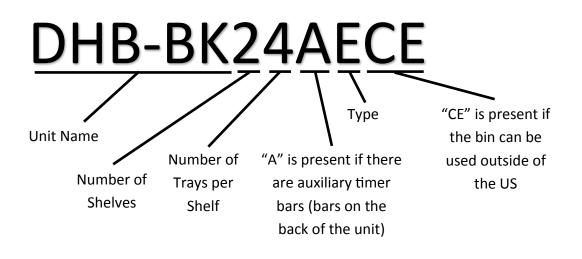
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355 EAST KEHOE BLVD. ~ CAROL STREAM, IL, 60188, USA PHONE: 630-462-8800 ~ TOLL FREE: 1-800-PCASTLE FAX 630-462-1460 ~ WWW.PRINCECASTLE.COM



Model Identification



Model Specifications

STYLE	MODEL NO.	WIDTH (mm)	HEIGHT (mm)	DEPTH (mm)	WEIGHT (kgs)	VOLTAGE	AMPS
011110111	DUD DUGGAE	10 7 (500)	44.4 (000)	4.4.(050)	0.4 !! (00.0)	000 040	0040
		` ,	` /	14.1 (358)	` '		3.8-4.3
2H X 3W	DHB-BK23AE	27.2 (691)	11.1 (282)	14.1 (358)	74 lbs. (33.6)	208-240	6.8-7.8
2H X 4W	DHB-BK24AE	33.2 (843)	11.1 (282)	14.1 (358)	97 lbs. (44.0)	208-240	9.0-10.4
3H X 2W	DHB-BK32AE	19.7 (500)	18.3 (465)	14.1 (358)	80 lbs. (36.3)	208-240	6.8-7.8
3H X 4W	DHB-BK34AE	33.2 (843)	18.3 (465)	14.1 (358)	120 lbs. (54.4)	208-240	13.5-15.6
4H X 2W	DHB-BK42AE	19.7 (500)	20.6 (523)	14.1 (358)	94 lbs. (42.6)	208-240	7.5-8.7
	2H X 2W 2H X 3W 2H X 4W 3H X 2W 3H X 4W	2H X 2W DHB-BK22AE 2H X 3W DHB-BK23AE 2H X 4W DHB-BK24AE 3H X 2W DHB-BK32AE 3H X 4W DHB-BK34AE	2H X 2W DHB-BK22AE 19.7 (500) 2H X 3W DHB-BK23AE 27.2 (691) 2H X 4W DHB-BK24AE 33.2 (843) 3H X 2W DHB-BK32AE 19.7 (500) 3H X 4W DHB-BK34AE 33.2 (843)	2H X 2W DHB-BK22AE 19.7 (500) 11.1 (282) 2H X 3W DHB-BK23AE 27.2 (691) 11.1 (282) 2H X 4W DHB-BK24AE 33.2 (843) 11.1 (282) 3H X 2W DHB-BK32AE 19.7 (500) 18.3 (465) 3H X 4W DHB-BK34AE 33.2 (843) 18.3 (465)	2H X 2W DHB-BK22AE 19.7 (500) 11.1 (282) 14.1 (358) 2H X 3W DHB-BK23AE 27.2 (691) 11.1 (282) 14.1 (358) 2H X 4W DHB-BK24AE 33.2 (843) 11.1 (282) 14.1 (358) 3H X 2W DHB-BK32AE 19.7 (500) 18.3 (465) 14.1 (358) 3H X 4W DHB-BK34AE 33.2 (843) 18.3 (465) 14.1 (358)	2H X 2W DHB-BK22AE 19.7 (500) 11.1 (282) 14.1 (358) 64 lbs. (29.0) 2H X 3W DHB-BK23AE 27.2 (691) 11.1 (282) 14.1 (358) 74 lbs. (33.6) 2H X 4W DHB-BK24AE 33.2 (843) 11.1 (282) 14.1 (358) 97 lbs. (44.0) 3H X 2W DHB-BK32AE 19.7 (500) 18.3 (465) 14.1 (358) 80 lbs. (36.3) 3H X 4W DHB-BK34AE 33.2 (843) 18.3 (465) 14.1 (358) 120 lbs. (54.4)	2H X 2W DHB-BK22AE 19.7 (500) 11.1 (282) 14.1 (358) 64 lbs. (29.0) 208-240 2H X 3W DHB-BK23AE 27.2 (691) 11.1 (282) 14.1 (358) 74 lbs. (33.6) 208-240 2H X 4W DHB-BK24AE 33.2 (843) 11.1 (282) 14.1 (358) 97 lbs. (44.0) 208-240 3H X 2W DHB-BK32AE 19.7 (500) 18.3 (465) 14.1 (358) 80 lbs. (36.3) 208-240 3H X 4W DHB-BK34AE 33.2 (843) 18.3 (465) 14.1 (358) 120 lbs. (54.4) 208-240

NOTE: All Model Numbers above are for double-sided units (with auxiliary timer bars).

For single-sided (only main timer bars) remove the letter "A"

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

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.

Important

Prince Castle reserves the right to change specifications and product design without notice. Such revisions do not entitle the buyer to corresponding changes, improvements, additions or replacements for previously purchased equipment.

2



Configurations



DHB-BK22AE



DHB-BK23AE



DHB-BK32AE



DHB-BK24AE



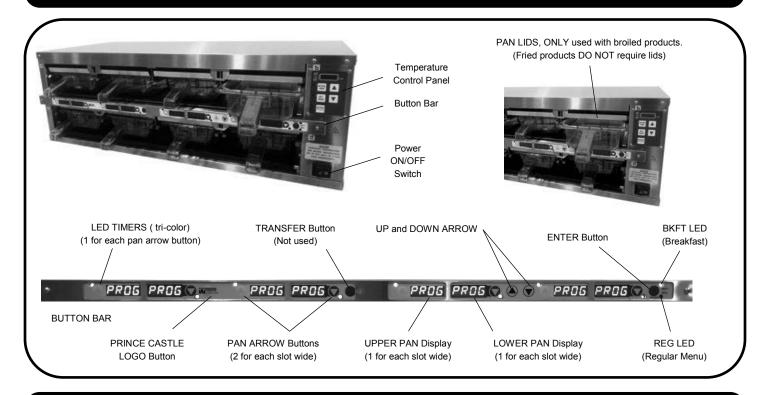
DHB-BK42AE



DHB-BK34AE



Product Identification



Installation

1

Remove the unit from the carton and inspect for signs of damage. If there is damage to the unit:

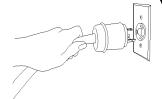
- notify the carrier within 24 hours of delivery
- save carton and packaging materials for inspection purposes
- contact your local dealer, or if purchased directly, the Prince Castle Sales Department at 800-722-7853 or 1-630-462-8800 to arrange for a replacement unit.

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. If the unit is to be networked with other Prince Castle units, refer to the CastleNet® Communication Network section in this manual for installation instructions.

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)

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.



Operation



<u>WARNING:</u> 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.



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

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.





LED TIMERS

RED (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 steady **RED**, 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 from **RED** to **GREEN**.

If only one pan is active for a product, the **LED** will turn from **RED** to **GREEN.**

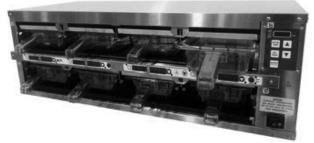
The **LED** for the 2nd pan loaded with the same product will turn from **RED** to **YELLOW**.

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 or remove and discard product as indicated.

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



A

WARNING: HOT SURFACES



Standalone Mode

NOTE: Prince Castle Holding bins are not to be connected to each other unless a Kitchen Minder is in use. If attempting to configure bins with Kitchen Minder, please refer to the included Kitchen Minder Setup Manual



Set all bin addresses to bin1.

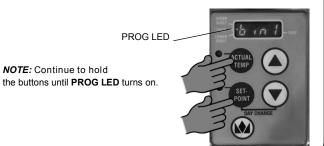
The factory default address for all bins and timers is address **bin1**.

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.



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.



Use the **UP** or **DOWN** Arrow button to scroll to the desired address.

Press the **PRINCE CASTLE LOGO** button to store the new address.

Available addresses are: bin1 thru bin4, bin1 will always be used when not using Kitchen Minder.





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.

NOTE: This naming scheme only is true without a kitchen management system, if hooked up to a system like Kitchen Minder, it is different. See its user manual for details.

To check the timer address, press and hold the **PRINCE CASTLE LOGO** button 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.



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 and the DOWN Arrow button until the display shows

SET ADDR ↑↓ ENTR BAR2. The address number will blink on/ off.

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 to save the setting.

Available addresses are: Bar2 thru Bar9

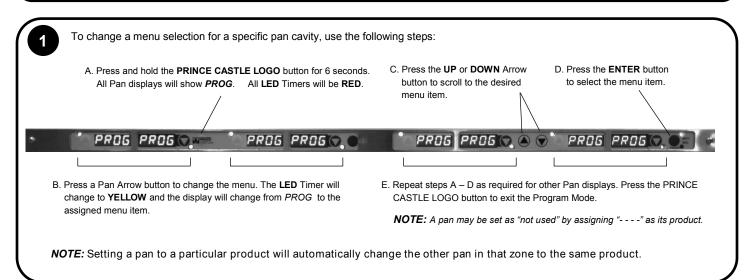


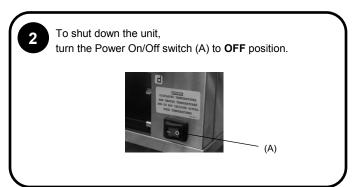
NOTE: Bar addresses are numbered from the bottom up

6



Setting Product Location (Standalone Mode)





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.

DHB-BKE Series



Setting the Temperature (Standalone Mode)

The unit has multiple shelves, each with 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

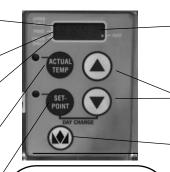
This LED will be lit to indicate lower shelf is selected.

ACTUAL TEMP BUTTON 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.

PRINCE CASTLE LOGO 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.

The **SET PRODUCT TEMP** menu is used to change the upper and lower temperatures for a particular product.

Press and hold the **PRINCE CASTLE LOGO** button, then immediately press and hold the **ENTER** button 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 **PROD BURG** ↑↓ **ENTR** (Set Product Temperature) menu.



Press the 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.



Press the ENTER button to select that product profile to update, the display will read SET UPR XXXX ###s

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 ENTER





Setting the Temperature (Continued)

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



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

Use the following steps to calibrate the individual heaters

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 starting calibration. (approx. 30 mins.)



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

NOTE: Use an independent Temperature meter (not supplied).

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

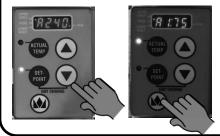
Press and hold the PRINCE CASTLE LOGO and ACTUAL TEMP buttons for 5 seconds. The colon (:) LED indicator will light. The temperature displayed is the actual heater temperature sensed by the controller. To clear any offset readings, press the SETPOINT button.





Press the **UP** or **DOWN** Arrow button until the temperature

displayed matches the reading obtained in Step 2. Press the PRINCE CASTLE LOGO button to save the temperature value and exit the Calibration Mode.



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 (Standalone Mode)

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 standalone 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.



DHB-BKE Series

PRINCECASTLE MARMON FOODSERVICE TECHNOLOGIE

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



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

Press and hold the PRINCE CASTLE LOGO button,

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* $\uparrow \downarrow ENTR$ (Set Product Time) menu.

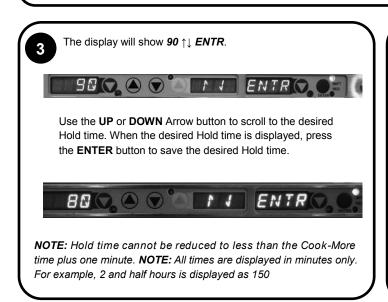


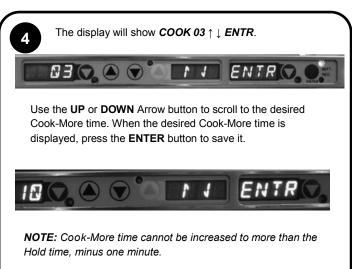
Press and release the **ENTER** button to enter the Set Product Time menu. The display will show **BURG TIME** $\uparrow\downarrow$ **ENTR**. Use the **UP** or **DOWN** Arrow button to scroll through the list of products.

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







The display will show **BURG TIME** $\uparrow \downarrow$ **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,

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.

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.



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

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



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.

DHB-BKE Series



Changing Temperature Scale (Standalone Mode)

The **SET F/C** menu is used to change the temperature scale.

Press and hold the PRINCE CASTLE LOGO button,

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.



Press the ENTER button to enter the menu.

Bar will display SET DEGR F/C ↑ LENTR and either the F or C will be blinking.



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)

The **SET VOLUME** menu is used to change the alarm volume.

Press and hold the PRINCE CASTLE LOGO button,

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 $\textbf{SET VOL} \uparrow \downarrow \textbf{\textit{ENTR}}$ (Set Volume) menu.



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

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.

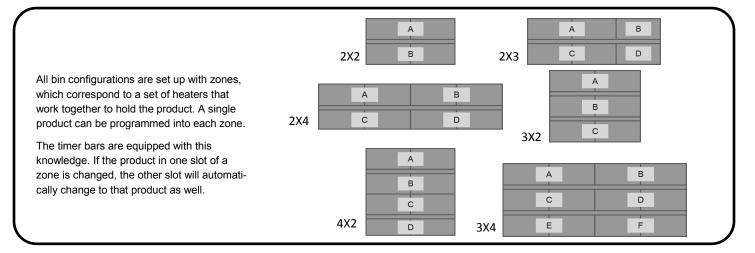




Default Menu Items

		Breakfas	st Products		
Product Name	Kitchen Minder Name	Hold Time	Cook-More Time	Upper Temp	Lower Temp
Biscuits	BISC	60	18	200	200
Breakfast Chicken	BCKN	60	3	250	220
Eggs	EGGS	90	3	230	200
French Toast	FTST	90	3	245	230
Sausage Patty	SAUS	120	3	235	215
Scrambled Eggs	SCRM	90	3	230	200
		Burger	Products		
Product Name	Kitchen Minder Name	Hold Time	Cook-More Time	Upper Temp	Lower Temp
1.7 Burg	BURG	90	3	240	220
Whopper	WHPR	90	3	240	220
Whopper Jr	WHJR	90	3	240	220
• •		Chicker	n Products		
Product Name	Kitchen Minder Name	Hold Time	Cook-More Time	Upper Temp	Lower Temp
Chicken Burger	CKNB	90	3	230	210
Chicken Fries	CFRS	60	3	250	220
Chicken Strips	STRP	60	3	255	230
Breaded Nuggets (New)	BNUG	60	3	260	235
Tempura Nuggets (Old)	TNUG	60	3	260	235
ocs	OCS1	90	3	250	220
Crispy Chicken Jr	CKJR	60	3	260	235
Spicy	SPCY	90	3	250	220
Tender Crisp	TENP	60	6	260	235
Tender Grill	TGRL	90	3	240	215
		Other	Products		
Product Name	Kitchen Minder Name	Hold Time	Cook-More Time	Upper Temp	Lower Temp
Cheese Sticks	CZST	60	3	200	200
Chili 4oz	SMCH	240	3	210	200
Chili 10oz	RGCH	240	3	210	200
Country Ham	CHAM	90	3	215	200
Country Pork	CPRK	90	3	235	215
Fish	FISH	60	3	260	235
Grilled Dog	GDOG	90	3	240	200
Mushrooms	MUSH	240	3	210	200
Onion Ring	ONIN	20	3	250	220
Tacos	TACO	40	3	215	200

Zones





Troubleshooting



<u>WARNING:</u> 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,	Turn power switch to ON position, Ensure power cord is connected				
	Power cord is not plugged in.	to proper receptacle				
Unit will not heat up	Wrong power cord, loose connection on power switch and/or heater	CALL TECH SUPPORT				
		1-800-722-7853				
Unit heats up but timer bars do not work	Timer bar wiring disconnected, timer bar is defective	CALL TECH SUPPORT				
		1-800-722-7853				
Unit under/over heats	Check temperature settings	CALL TECH SUPPORT				
		1-800-722-7853				
Display flashes OPN and REL	Open relay, circuit or heater inoperable	CALL TECH SUPPORT				
KEL		1-800-722-7853				
Display flashes SHR and	Shorted relay, circuit inoperable,	CALL TECH SUPPORT				
REL	open heater, unplugged ribbon cable	1-800-722-7853				
Display shows HHH for extended period and heat-	Temperature is above 300 F (149 C),	CALL TECH SUPPORT				
er surface temperature is hot	Abnormal operation	1-800-722-7853				
Display shows HOLD	Only displayed on a 3X4 Bin display board, when the operator changes the bin address or during calibration	HOLD message means the 2 PC boards in the bin are communicating, wait until the message disappears				
Display shows WAIT	When in stand alone mode and the operator makes change to the product profile	Wait until the message disappears				
Display shows INIT	When switching from Kitchen Minder to stand alone mode	Bin is learning Kitchen Minder menus, wait for message to disappear				
Timer bar displays COMM DOWN	Bin is not communicating with Kitchen Minder	Refer to Kitchen Minder setup manual				

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 Kitchen Minder/Visor/Sicom system is connected properly. Requires service technician to troubleshoot.

USB Update Procedure (all bins except the 3Hx4W)

- 1. First, un-plug Kitchen Minder, translator box, and any cable translation 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 "Prince Castle" button on front right side of the bin, above the power switch, turn the power to the bin on.
- 5. Keeping the "Prince Castle" 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)
 - b. BL00 (searching for timer bars to upgrade)
 - c. BL02 (2 timer bars left to upgrade)
 - d. BL01 (1 timer bar left to upgrade)

- e. BL00 (0 timer bars left to upgrade)
- f. BN02 (2 timer bars detected and done with programming)
- g. Confirm the upgrade of timer bars by pressing the
- Prince Castle logo button and down button on timer bar.
- 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 he 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.

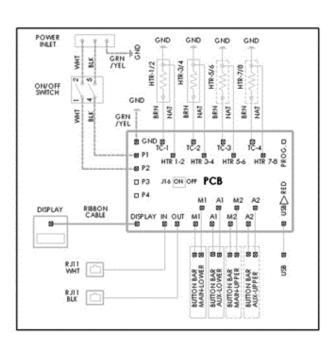
When the bin is done updating, place the second set of files on the USB drive.

- 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 "Prince Castle" button on front right side of the bin, above the power switch, turn the power to the bin on.
- 5. Keeping the "Prince Castle" 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 "Prince Castle" 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. Check the version number by holding the Prince Castle button on the top timer bar and the down arrow.

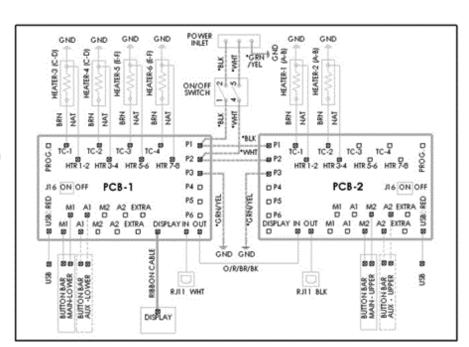


Wiring Diagrams

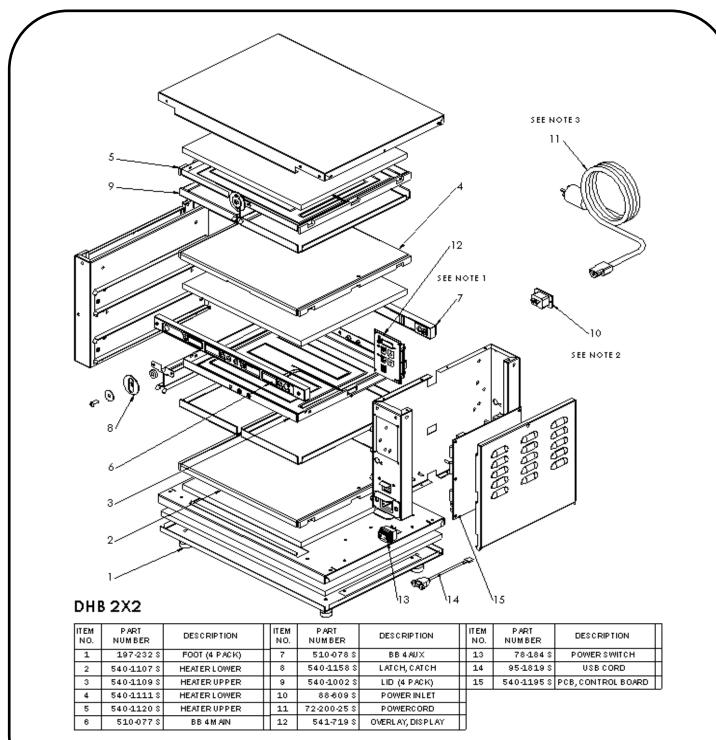
This Wiring diagram is used in all configurations except the 3X4



This wiring diagram is used in the 3X4 configuration only

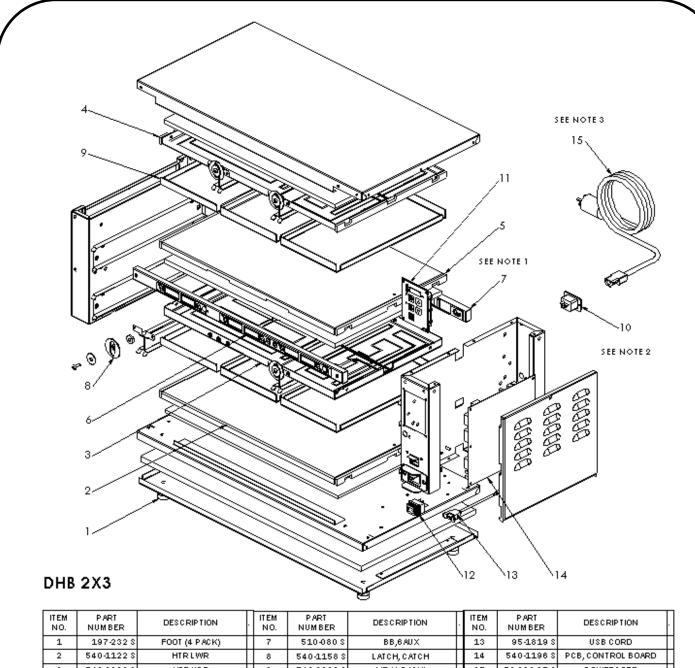






- 1) AUX TIMER BAR (510-078 S) USED ONLY ON DHB-BKAE, AECE
 2) POWER INLET (88-609 S) USED ONLY ON DHB-BKE, AE USE POWER INLET FILTER (88-720-01 S) FOR DHB-BK ECE, AECE
 3) POWER CORD (72-200-25 S) USED ONLY ON DHB-BKE, AE USE IEC CORD (72-235 S) FOR DHB-BKECE, AECE

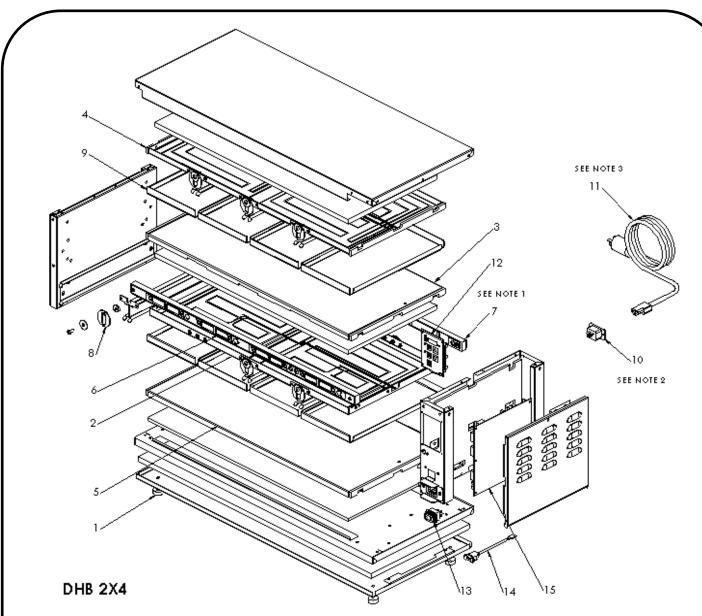




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1	197-2328	FOOT (4 PACK)	7	510-080 S	BB,6AUX	П	13	95-18198	USB CORD	Ī
2	540-11228	HTRLWR	8	540-11588	LATCH, CATCH		14	540-11968	PCB, CONTROL BOARD	
3	540-11188	HTRUPR	9	540-10028	LID (4 PACK)	П	15	72-200-258	POWERCORD	_
4	540-11163	HTRUPR	10	88-6093	POWER, INLET	П				
5	540-11238	HTRLWR	11	541-7198	OVERLAY, DISPLAY	П				
6	510-0798	BB,6M AIN	12	78-184 S	POWER SWITCH	П				

1) AUX TIMER BAR (510-080 S) USED ONLY ON DHB-BKAE, AECE
2) POWER INLET (88-609 S) USED ONLY ON DHB-BKE, AE USE POWER INLET FILTER (88-720-01 S) FOR DHB-BK ECE, AECE
3) POWER CORD (72-200-25 S) USED ONLY ON DHB-BKE, AE USE IEC CORD (72-235 S) FOR DHB-BKECE, AECE



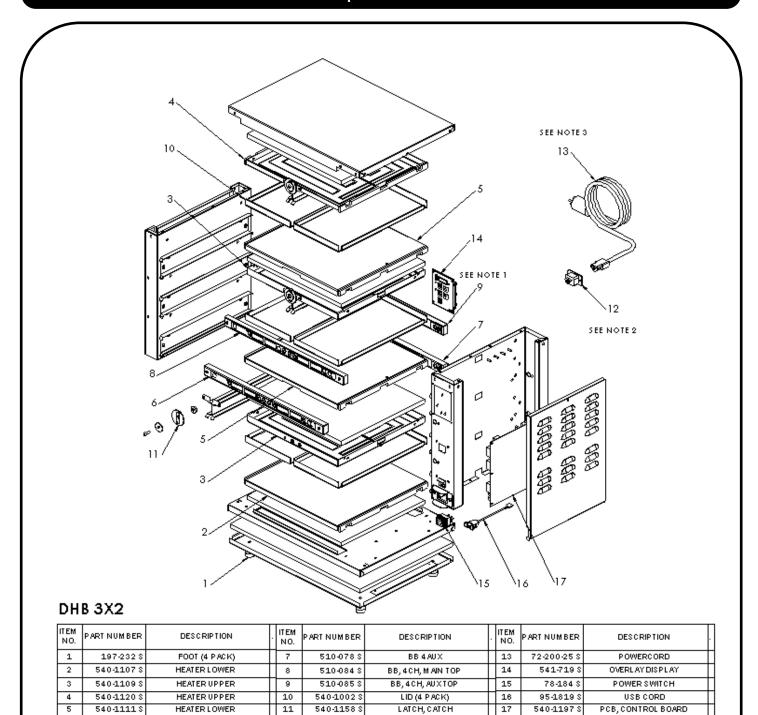


ITEM NO.	PART NUMBER	DESCRIPTION		ITEM NO.	PART NUMBER	DESCRIPTION		ITEM NO.	PART NUMBER	DESCRIPTION .	
1	197-2328	FOOT (4 PACK)		7	510-2178	BB,8AUX	Г	13	78-184 S	POWER SWITCH	7
2	540:10133	UPPER HEATER	П	8	540-11588	LATCH, CATCH		14	95-18198	USB CORD]
3	540-10128	LOWER HEATER	П	œ	540-10028	LID (4 PACK)		15	540-11913	PCB, CONTROL BOARD]
4	540:10318	UPPER HEATER, TOP	П	10	88-609 \$	POWER, INLET					_
5	540-10728	LOWER HEATER, BASE	П	11	72-200-25 S	POWERCORD					
6	510-2158	BB,8M AIN	П	12	541-7198	OVERLAY, DISPLAY	Γ				

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- 1) AUX TIMER BAR (510-217 S) USED ONLY ON DHB-BKAE, AECE
 2) POWER INLET (88-609 S) USED ONLY ON DHB-BKE, AE USE POWER INLET FILTER (88-720-01 S) FOR DHB-BK ECE, AECE
 3) POWER CORD (72-200-25 S) USED ONLY ON DHB-BKE, AE USE IEC CORD (72-235 S) FOR DHB-BKECE, AECE





BB 4M AIN

1) AUX TIMER BAR (510-078 S AND 510-085 S) USED ONLY ON DHB-BKAE, AECE
2) POWER INLET (88-609 S) USED ONLY ON DHB-BKE, AE USE POWER INLET FILTER (88-720-01 S) FOR DHB-BK ECE, AECE
3) POWER CORD (72-200-25 S) USED ONLY ON DHB-BKE, AE USE IEC CORD (72-235 S) FOR DHB-BKECE, AECE

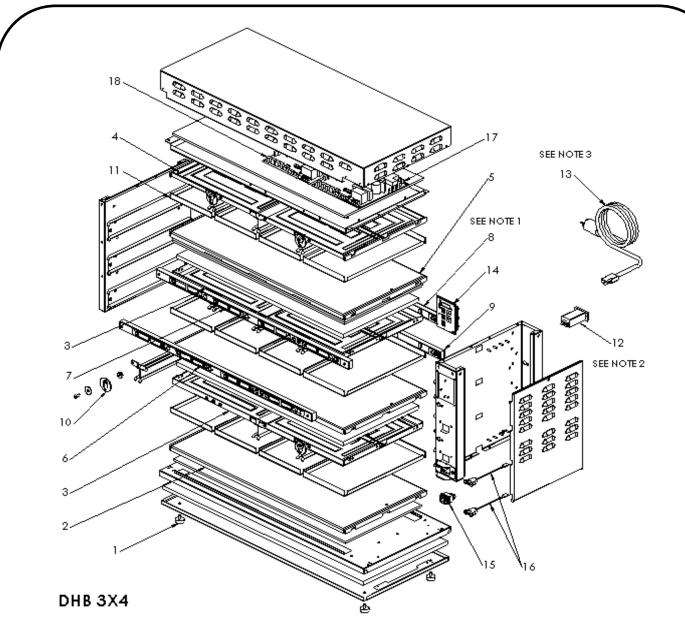
88-609 S

12

510-0778

POWER, INLET

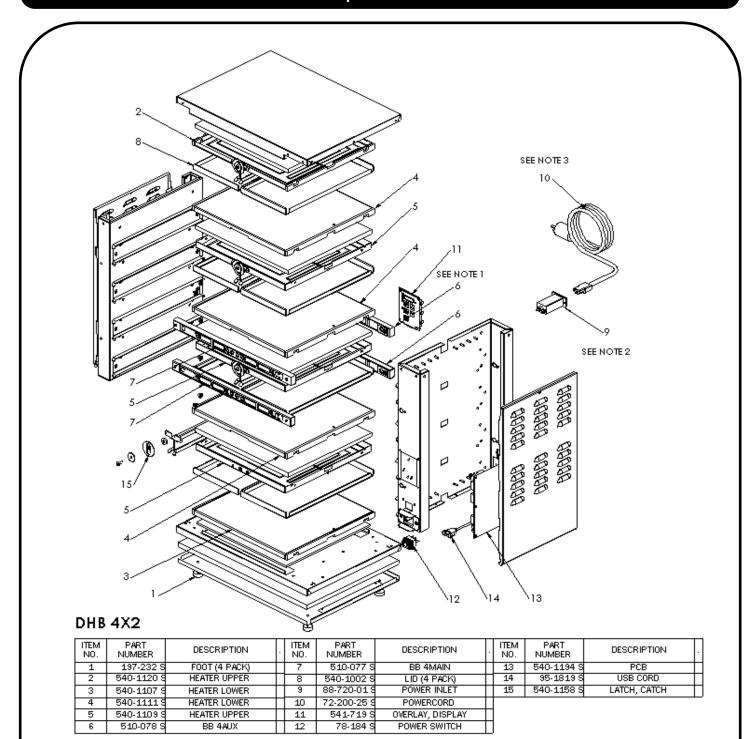




NO.	PART NUMBER	DESCRIPTION		ITEM NO.	PART NUMBER	DESCRIPTION		ITEM N0.	PART NUMBER	DESCRIPTION .
1	197-232 S	FOOT (4 PACK)	П	7	510-075 S	BB,8MAIN TOP		13	72-200-25 S	POWERCORD
2	540-1198 S	LOWER HTR	П	8	510-076 S	BB,8 AUX TOP		14	541-719 S	OVERLAY, DISPLAY
3	540-1199 S	UPPER HTR	П	9	510-217 S	BB,8AUX	П	15	78-184 S	POWER SWITCH
4	540-1201 S	UPPER HTR	П	10	540-1158 9	LATCH, CATCH	П	16	95-1819 S	USB CORD
5	540-1200 S	LOWER HTR		11	540-1002 S	LID(4 PACK)	П	17	540-1192 S	PCB, BOARD-1
6	510-215 S	BB,8MAIN	Π	12	88-720-018	POWER INLET FILTER		18	540-1193 S	PCB, BOARD-2

1) AUX TIMER BAR (510-076 S AND 510-217 S) USED ONLY ON DHB-BKAE, AECE
2) POWER INLET (88-609 S) USED ONLY ON DHB-BKE, AE USE POWER INLET FILTER (88-720-01 S) FOR DHB-BK ECE, AECE
3) POWER CORD (72-200-25 S) USED ONLY ON DHB-BKE, AE USE IEC CORD (72-235 S) FOR DHB-BKECE, AECE





- 1) AUX TIMER BAR (510-078 S) USED ONLY ON DHB-BKAE, AECE
 2) POWER INLET (88-609 S) USED ONLY ON DHB-BKE, AE USE POWER INLET FILTER (88-720-01 S) FOR DHB-BK ECE, AECE
 3) POWER CORD (72-200-25 S) USED ONLY ON DHB-BKE, AE USE IEC CORD (72-235 S) FOR DHB-BKECE, AECE