Operation Manual



Extended Hold Bin EHB34-2 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 (service 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.

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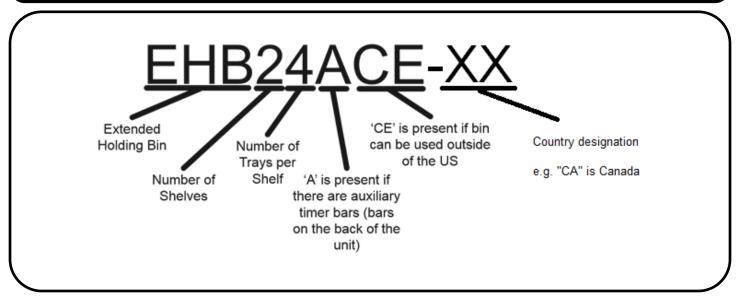
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355 EAST KEHOE BLVD. ~ CAROL STREAM, IL, 60188, USA PHONE: 630-462-8800 ~ TOLL FREE: 1-800-PCASTLE FAX 630-462-1460 ~ WWW.PRINCECASTLE.COM



Model Identification



Serial Number Matrix

The manufacture date is encoded in the unit's serial number. The service bench installation date (used to determine warranty coverage) is considered to be the end of the following month. For example:

Serial Number: JL0173804

Manufacture Date: September 2016

Service Bench Installation Date: October 31, 2016

		SERIAL NUMBER MATRIX							
		2016	2017	2018	2019	2020	2021	2022	2023
		L	М	Ν	Р	R	S	Т	U
January	Α	AL	AM	AN	AP	AR	AS	ΑT	AU
February	В	BL	BM	BN	BP	BR	BS	ВТ	BU
March	С	CL	CM	CN	СР	CR	CS	СТ	CU
April	D	DL	DM	DN	DP	DR	DS	DT	DU
May	Ε	EL	EM	EN	EP	ER	ES	ET	EU
June	F	FL	FM	FN	FP	FR	FS	FT	FU
July	G	GL	GM	GN	GP	GR	GS	GT	GU
August	Н	HL	НМ	HN	HP	HR	HS	HT	HU
September	J	JL	JM	JN	JP	JR	JS	JT	JU
October	K	KL	KM	KN	KP	KR	KS	KT	KU
November	L	LL	LM	LN	LP	LR	LS	LT	LU
December	М	ML	MM	MN	MP	MR	MS	MT	MU



Model Specifications

STYLE	WIDTH (mm)	HEIGHT (mm)	DEPTH (mm)	WEIGHT (kgs)	VOLTAGE	AMPS	PLUG
				•		•	
3H X 4W	33.2" (843)	16.2" (413)	14.1" (358)	83 lbs (38)	208-240V	13.5-15.6	6-20P

NOTE:

Weight (kgs) is product 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.

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.

Installation



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.



Place 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.





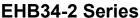
WARNING:

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.

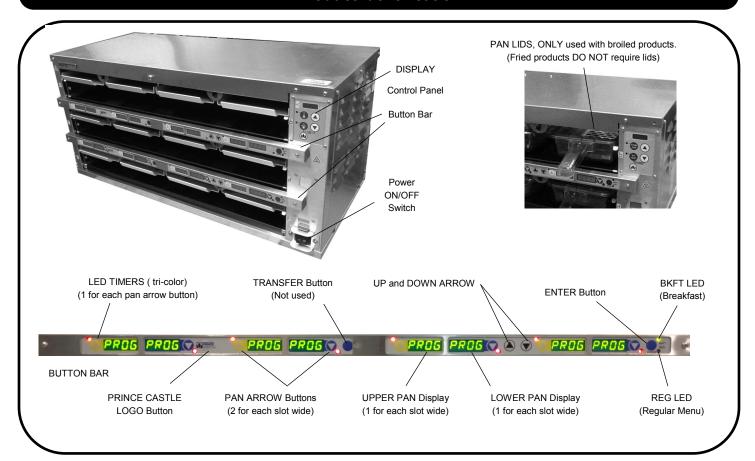
To prevent an electric shock hazard this device must be bonded to equipment in close proximity with an equipotential bonding conductor. This device is equipped with a grounding lug for this purpose.

Dedicated Holding Bin





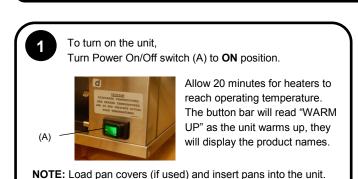
Product Identification

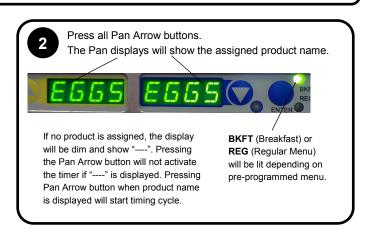


Operation



<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.







Operation

3

LED Timing Status



LED TIMERS

BLANK (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 **BLANK**, load product and press the Pan Arrow button.



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

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

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

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

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



 \mathbf{A}

WARNING: HOT SURFACES



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.

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

LOWER SHELF LED

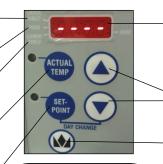
This LED will be lit to indicate lower shelf is selected.

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.

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.

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)

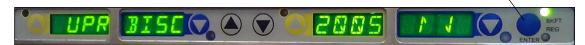
Use the **UP** or **DOWN** Arrow button to scroll to the **SET TEMP** ↑ ↓ **ENTR** (Set Product Temperature) menu.



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.



Press the MENU/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 MENU/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 **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.

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

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

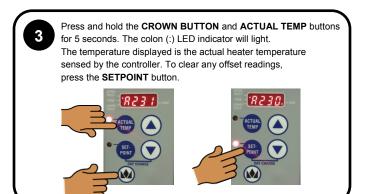
NOTE: Allow sufficient amount of time for temperatures to stabilize before starting calibration. (approx. 30 mins.)

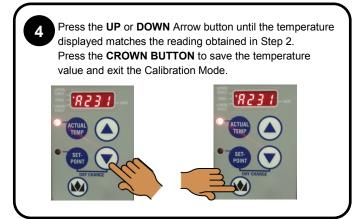


Take a temperature reading within the shelf near the center of each heater surface.

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

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





EHB34-2 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 ↑ ↓ ENTR (Set Product Time) menu.

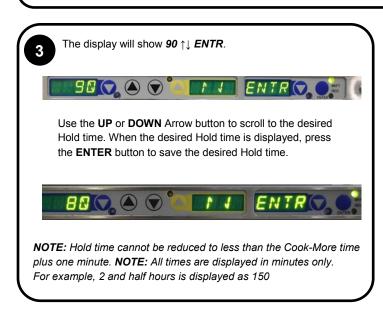


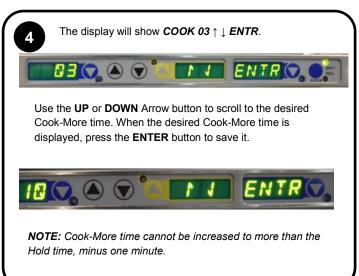
Press and release the **ENTER** button to enter the Set Product Time menu. The display will show **BURG TIME** ↑↓ **ENTR**. Use the **UP** or **DOWN** Arrow button to scroll through the list of products.

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.







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)

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** \(\triangle \ightarrow 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 scroll up or down.

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.



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 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.



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.

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 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.



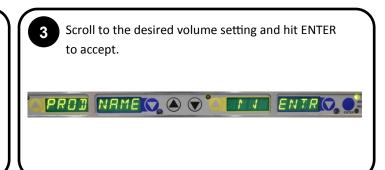
NOTE: Only applicable in stand-alone mode when not connected to Product Management system.

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







Selecting the Daypart



Press and hold the SETPOINT button and the DOWN Arrow button for 3 seconds, the current day part will begin flashing on the screen.

Use the **up/down** arrows to select day part 1 through 6 and the Prince Castle Crown button to confirm your selection.

NOTE: Whenever a bin is powered ON it defaults to DAY



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.

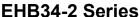


CAUTION:

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

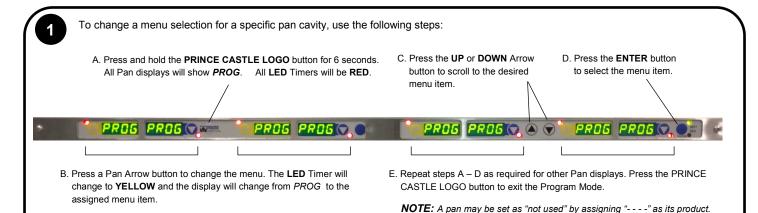
- 1. Turn the unit off and unplug the power cord from electrical receptacle.
- 2. Remove the pans and covers. Wipe all parts and unit with a damp cloth. DO NOT use a green Scotch Bright pad cleaner, ice or water.

Dedicated Holding Bin





Setting Product Location



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

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.



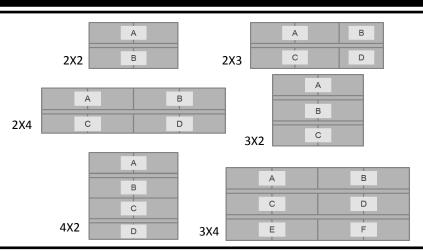
Default Menu Items

		BREAKFAS	T PRODUCTS		
		HOLD TIME	COOK MORE TIME		
DISPLAY NAME	PRODUCT NAME	(MINUTES)	(MINUTES)	TOP TEMP (°F)	BOTTOM TEMP (°F)
EGGS	SCRAMBLED EGGS	90	4	230	200
FREG	FRIED EGG	90	2	230	200
PCAK	PANCAKES	30	2	180	170
BISC	BISCUITS	60	16	180	180
FTST	FRENCH TOAST	60	2	245	230
SAUS	SAUSAGE PATTY	120	2	235	215
HAMC	COUNTRY HAM	90	5	215	200
	100000000000000000000000000000000000000	BURGER	PRODUCTS	_ = ::=	
		HOLD TIME	COOK MORE TIME		
DISPLAY NAME	PRODUCT NAME	(MINUTES)	(MINUTES)	TOP TEMP (°F)	BOTTOM TEMP (°F)
WHOP	WHOPPER	40	3	240	180
JR18	WHOPPER JR. (2018)	90	3	240	210
		CHICKEN	PRODUCTS		= : •
		HOLD TIME	COOK MORE TIME		
DISPLAY NAME	PRODUCT NAME	(MINUTES)	(MINUTES)	TOP TEMP (°F)	BOTTOM TEMP (°F)
BCKN	BREAKFAST CHICKEN	60	4	250	220
CFRY	CHICKEN FRIES	60	2	260	235
PFRY	PRETZEL CHICKEN FRIES	60	2	260	235
ocs	ORIGINAL CHICKEN	90	4	210	190
CKJR	CRISPY CHICKEN JR.	60	3	240	220
CRIS	CRISPY CHICKEN	30	7	210	190
SPCH	SPICY CHICKEN	30	7	210	190
GCHK	GRILLED CHICKEN	90	3	220	190
CNUG	CHICKEN NUGGET	60	3	260	235
		OTHER F	RODUCTS		
		HOLD TIME	COOK MORE TIME		
DISPLAY NAME	PRODUCT NAME	(MINUTES)	(MINUTES)	TOP TEMP (°F)	BOTTOM TEMP (°F)
CZST	CHEESE STICKS	60	2	200	200
СТОТ	CHEESY TOTS	120	4	200	200
TACO	TACOS	40	2	215	200
FMAC	FLAMING HOT MAC &	60	3	200	200
FISH	FISH	60	4	240	200
SPAM	SPAM	120	2	235	215
PSAU	PORTUGUESE SAUSAGE	120	20	235	215

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.





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	
	power switch analor medici	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	
NEL		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 unit is in bin1/BAR2/BAR3. Otherwise, requires service technician to troubleshoot.

USB Update Procedure

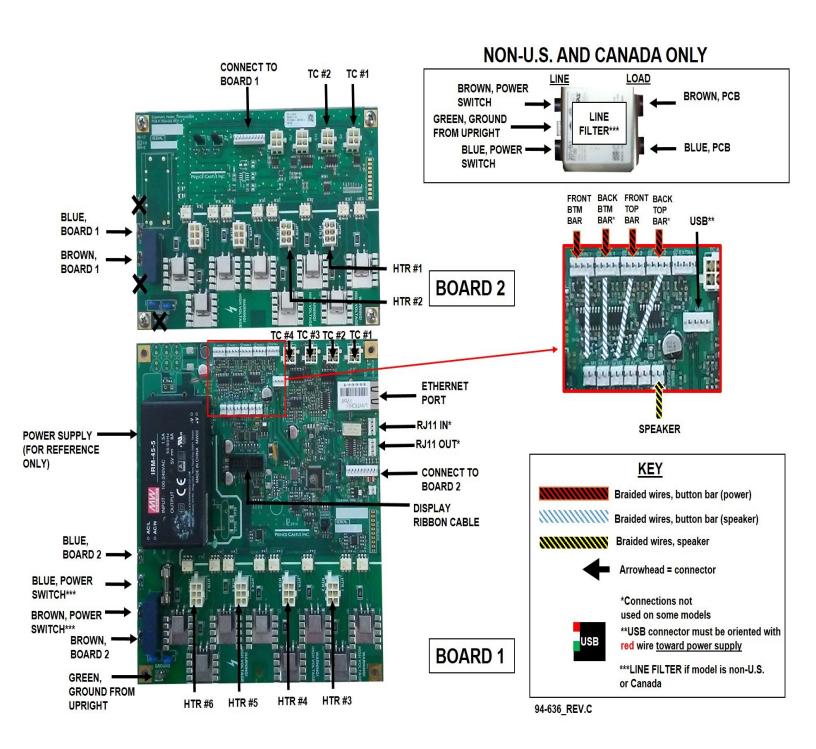
- 1. First, un-plug any communication cables from the holding bin. These devices will interfere with the timer bar boot loading process.
- 2. Place the update files on the USB flash drive in the main directory (Do not put them in a folder on the flash drive). There are five* files that you will need 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)
 - b. BL00 (searching for timer bars to upgrade)
 - c. BL04 (4 timer bars left to upgrade)
 - d. BL03 (3 timer bar left to upgrade)

- e. BL02 (2 timer bars left to upgrade)
- f. BL01 (1 timer bar left to upgrade)
- g. BL00 (0 timer bars left to upgrade)
- h. BN04 (4 timer bars detected and done with programming)
- 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.

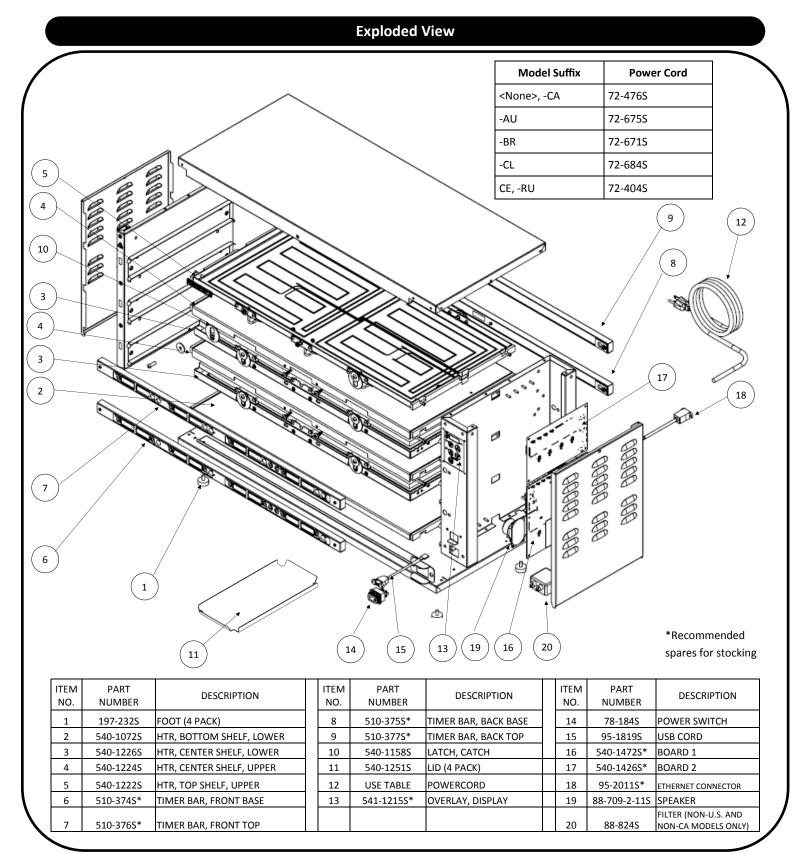
*EHB34XX requires seven files. The two additional to those listed are mainbar2.hex and auxbar2.hex.



Wiring Diagram









REV	DATE	DESC.
А	4/15/19	RELEASE
В	9/11/19	UPDATED MODEL TITLE
С	10/2/19	CHANGED TO "-2" MODEL SERIES
D	10/3/19	UPDATED WIRING DIA- GRAM