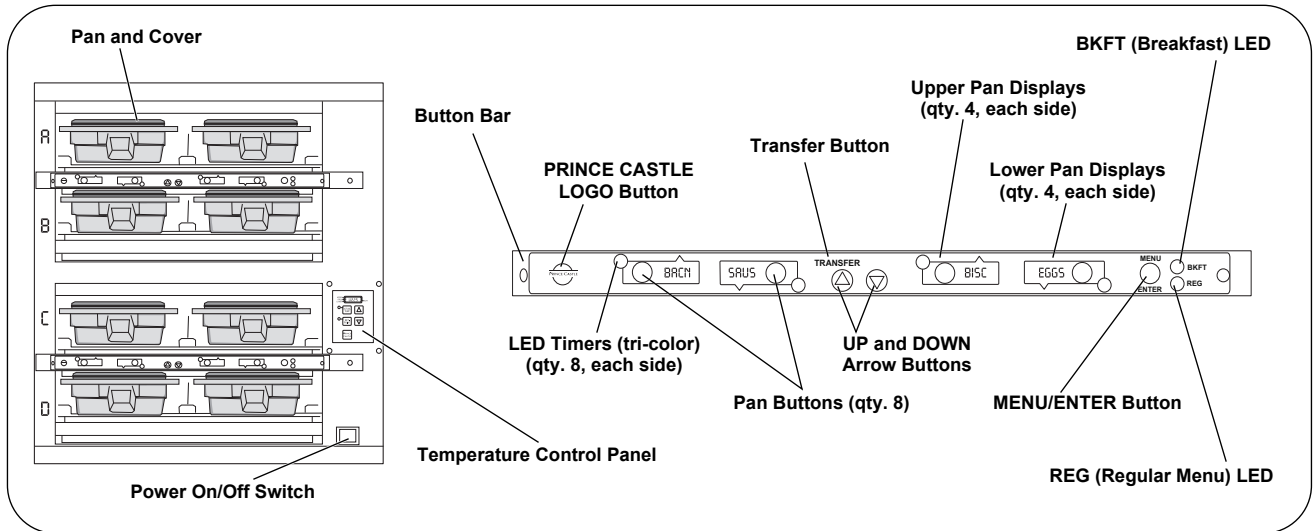


Operation Manual



Product Holding Bin
DHB-BK41/43

Product Identification



LIMITED WARRANTY

This product is warranted to be free from defects in material and/or workmanship for a period of 2 years 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, Inc.) without cost to the customer for parts and labor. This warranty covers on-location service (i.e. trip charges and/or mileage). Travel mileage is limited to 100 miles (200 Kilometers) round trip (one trip warranty) from an authorized service agency or its sub-service agency.

This warranty is subject to the following exceptions/conditions:

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

Note: When connected to the kitchen minder, the transfer and daypart function is disabled on the button bar.



TABLE OF CONTENTS

| | |
|---|-----|
| Product Identification | 1 |
| Safety Information | 2 |
| Installation | 2 |
| Operation | 3 |
| Cleaning | 4 |
| Programming | 6-9 |
| CastleNet® Communications Network | 10 |
| Factory Presets | 11 |
| Troubleshooting | 12 |
| Exploded View and Parts List | 13 |
| Wiring Diagram | 14 |

PRINCE CASTLE LLC
WORLDWIDE



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Fax: 630-462-1460 • www.princecastle.com

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.

Installation

- A. 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: When installing this unit, the ambient temperature at the mounting site should not exceed 100°F.

- B. Place the bin on a counter and seal the base to the counter with food-approved sealant.
- C. Plug the power cord into the bin and connect the plug into the proper electrical outlet (15 amp, 120 Volt). All connections must be in accordance with local electrical codes and any other applicable codes.

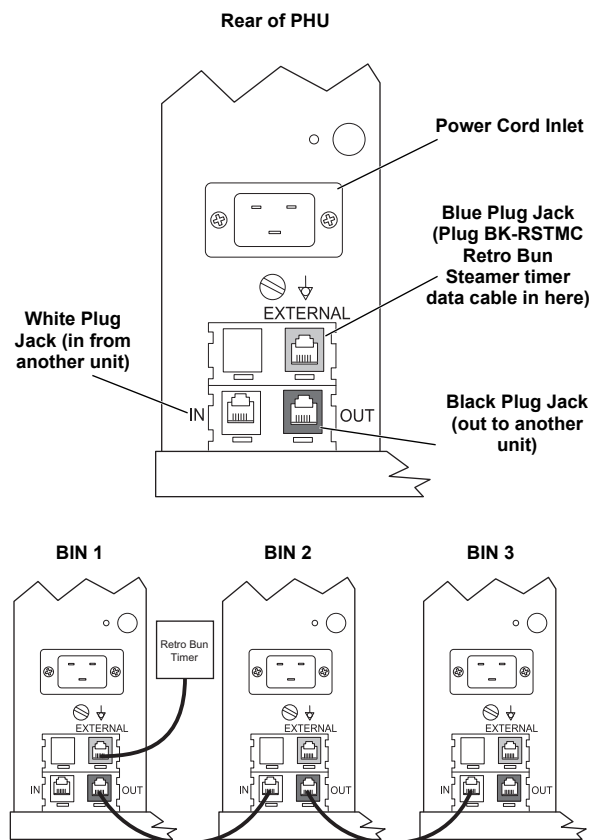
NOTE: The electrical receptacle should be a dedicated outlet. No other equipment should be operating on the line (refrigerators, fryers, etc.).

- D. If used, plug the Prince Castle Retro Bun Steamer BK-RSTMC timer data cable into the blue plug jack (external) located on the rear of the Prince Castle holding bin. If cable from timer is too short, use Prince Castle Extender Cable Kit, P/N PC-COMEXT.

- E. Install the racks, pans and pan covers into the cavities.

- F. Turn the power switch to ON. Allow 30 minutes for warm-up.

NOTE: If the unit is to be networked with other Prince Castle units, a Retro Bun Timer may be connected to any one bin in the chain. Refer to CASTLENET COMMUNICATIONS NETWORK in this manual.

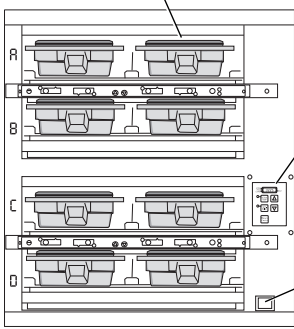


Prince Castle reserves the right to change specifications and product design without notice. Such revisions do not entitle the buyer to corresponding changes, improvements, additions or replacements for previously purchased equipment.

Operation

1 Turn power On/Off switch to ON position.


Load pan covers (if used) onto pan racks and insert racks into the unit.



Allow 30 minutes for heaters to reach operating temperature. The Temperature Display will show temperature as unit warms up to the operating temperature.

Power On/Off Switch


2 Press all PAN 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 button will not activate the timer if "- - -" is displayed. Pressing PAN button when product name is displayed will start timing cycle.

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

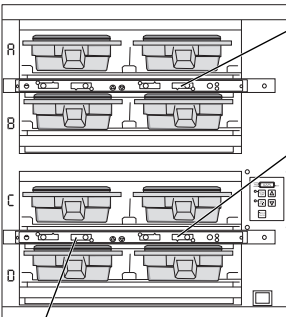
3 LED Timing Status



LED Timers

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 button.



If no other pan is active for a product, the LED for the first pan loaded will turn from RED to GREEN.

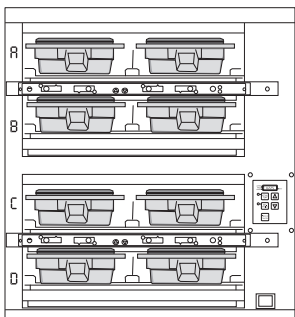
The LED for the 2nd pan (3rd pan, etc.) loaded will turn from RED to YELLOW.

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

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

5 When any of the timer LEDs 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




WARNING
Hot surfaces.

6 Product, along with any remaining time, can be transferred from one cavity to another as follows:

A. Press and release the TRANSFER button on the timer bar of the product to be moved. Displays for all pans available for transfer will be brightly lit. All others will be dimly lit.

C. Press and release the TRANSFER button on the bar where the product will be moved. All available pan locations on the bar will be brightly lit.



B. Press and release the PAN button of the product to be moved.

D. Press and release the PAN button for the new location. The new location will finish timing the product. When the transferred pan time expires, the location will revert back to the original menu settings.

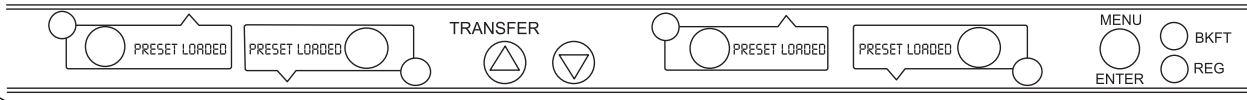
NOTE: If product transfer is not completed within a pre-programmed transfer time, the transfer will be cancelled. See your Manager.

Operation (continued)

- 7** To shut down the unit, turn the power On/Off switch to OFF.

NOTE: To load preset times/menus:

- Turn power switch to OFF.
- Press and hold both the UP and DOWN Arrow buttons.
- Turn power switch ON.
- When the four right-most displays show PRESET LOADED, release the buttons.



Cleaning



WARNING

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



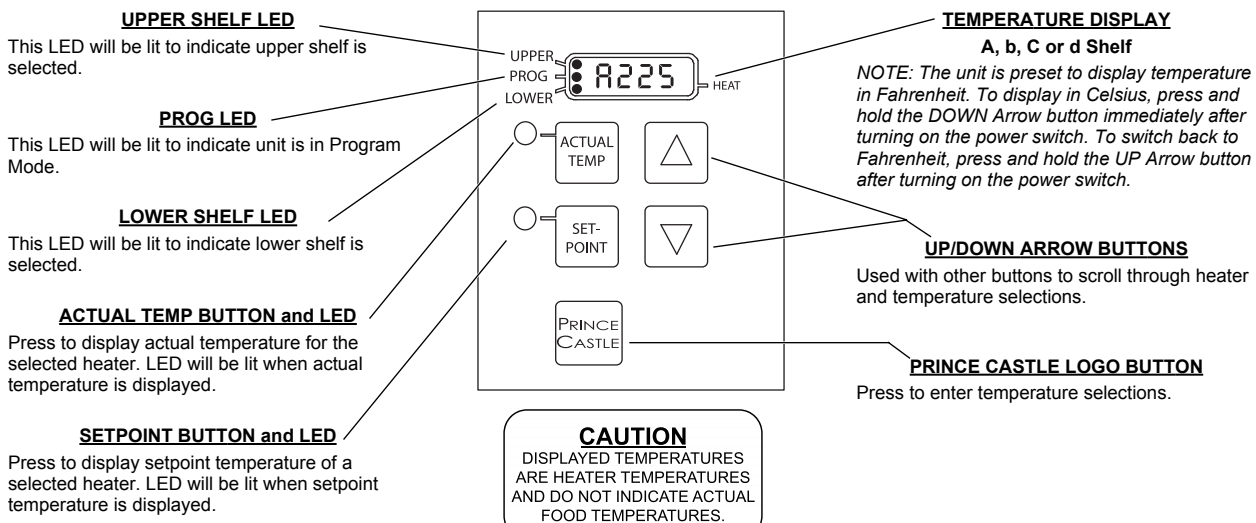
CAUTION

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

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

Setting the Temperature

- 1** The unit has four shelves, each with an upper and lower heater (eight heaters total).
The factory pre-set for the upper heaters is 225°F.
The factory pre-set for the lower heaters is 195°F.
Each upper heater has a programmable range of 150° – 275°F.
Each lower heater has a programmable range of 150° – 225°F.
Use the control below and the following steps to set the setpoint temperature for each heater.



NOTE: To reset all times and temperatures 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 times and temperatures will be reset to original factory settings.

Setting the Temperature (continued)

2 Press the UP or DOWN Arrow button until the desired shelf (A, b, C or d) LED and upper (U) or lower (L) heater is selected.

3 Press and hold the SETPOINT button and the PRINCE CASTLE LOGO button for 5 seconds. The Program LED will light.

4 Press the UP or DOWN Arrow button until the desired setpoint temperature is displayed.

5 Press the PRINCE CASTLE LOGO button to save the new setpoint value. Repeat steps 2 – 5 to change the setpoint for any other heater.

Calibrating Heaters

1 Use the following steps to calibrate the individual heaters.

NOTE: Allow sufficient amount of time for temperatures to stabilize before starting calibration.

Press the UP or DOWN Arrow button until the desired shelf LED and upper (U) or lower (L) heater is selected.

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

Use a stand-alone temperature meter (not supplied).

WARNING
Hot surfaces. Use caution when taking temperature readings within the shelf.

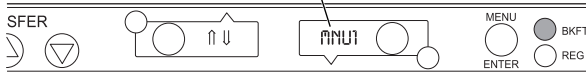
3 A. Press and hold the PRINCE CASTLE LOGO and ACTUAL TEMP buttons for 5 seconds. The colon (:) LED indicator will light. The temperature displayed is the actual heater temperature sensed by the controller.
B. To clear any offset readings, press the SETPOINT button.

4 A. Press the UP or DOWN Arrow button until the temperature displayed matches the reading obtained in Step 2.
B. Press the PRINCE CASTLE LOGO button to save the temperature value and exit the Calibration Mode.

Selecting Breakfast and Regular Menus

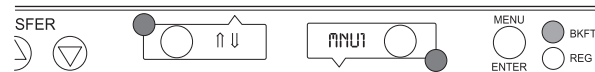
- 1** There are six menus available:
BKFT LED ON = Menu1 or Menu6
REG LED ON = Regular2, Regular3, Regular4, or Regular5
Press and hold the MENU/ENTER button, then use the UP or DOWN Arrow button to scroll through the 6 menus.

When scrolling, menu numbers appear in this display.



- 2** When the desired menu is displayed, release the MENU/ENTER button. The food products for the menu will be displayed in the upper and lower PAN displays.

When timers for a different menu are still active, those BKFT or REG LEDs will flash until they are all cancelled.



Programming the Menus

- 1** Press and hold the PRINCE CASTLE LOGO button (on the button bar) until all the displays show PROG and the PAN buttons LEDs all glow RED.



- 2** Press and hold the MENU/ENTER button. The display next to the MENU/ENTER button will show the menu choices. Use the UP or DOWN Arrow button to scroll through the 6 menus. Release the MENU/ENTER button when the desired menu is displayed.



When the MENU/ENTER button is released, all displays will again show PROG.



- 3** A. Press the PAN button next to the display to be changed. The LED will change from RED to YELLOW and the display will change from PROG to the assigned product choice.



- B. Press the UP or DOWN Arrow button to scroll to the desired product choice.
C. Press the MENU/ENTER button to save the selection. All displays will show PROG.



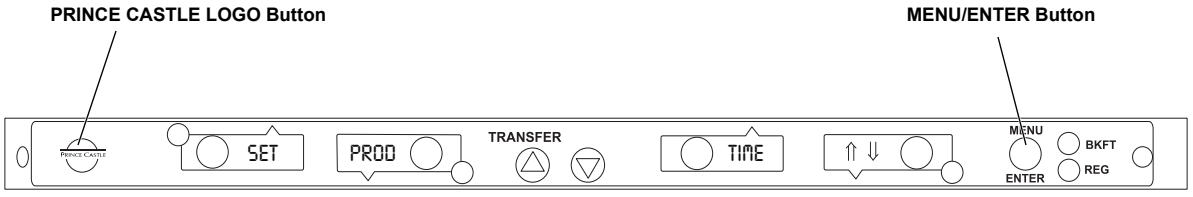
- 4** A. Repeat Steps 2 and 3 as required.
B. Press the PRINCE CASTLE LOGO button to exit the Program Mode and return to the Run Mode.

NOTE: Up to six items (one for each menu) may be programmed for each PAN button. A pan may be set as "not used" by assigning "----" as its product.

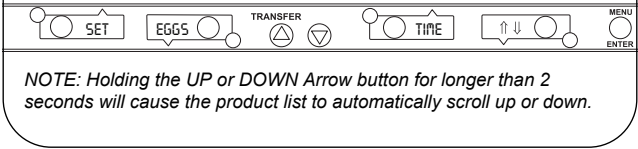


Changing the Hold and Cook-More Times

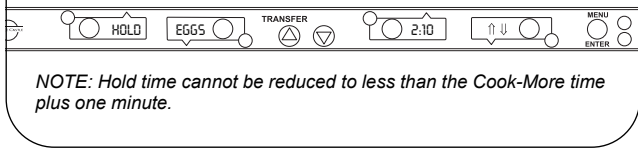
1 A. The SET PRODUCT TIME menu is used to change the Hold and Cook-More times.
 B. Press and hold the PRINCE CASTLE LOGO button, then immediately press and hold the MENU/ENTER button until the display shows one of the programming menus.
 C. Use the UP or DOWN Arrow button to scroll to the SET PROD TIME ↑ ↓ menu.
NOTE: Hold Times are specified by Burger King Corporation. Prince Castle does not endorse changing hold times unless instructed by Burger King Corporation.



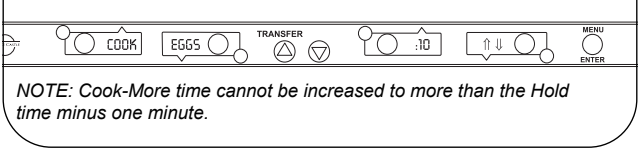
2 A. Press and release the MENU/ENTER button to enter the Set Product Time menu. The display will show, for example, SET EGGS TIME ↑ ↓.
 B. Use the UP or DOWN Arrow button to scroll through the list of products. When the desired product is displayed, press the MENU/ENTER button to select it.
 Refer to the Product Menu Details on page 11 for a list of products and their corresponding display names.



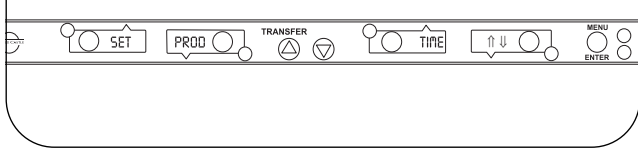
3 A. The display now shows the current Hold time.
 B. Use the UP or DOWN Arrow button to scroll to the desired Hold time. When the desired Hold time is displayed, press the MENU/ENTER button to save the desired Hold time.



4 A. The display will now show current Cook-More time. Use the UP or DOWN Arrow button to scroll to the desired Cook-More time.
 B. When the desired Cook-More time is displayed, press the MENU/ENTER button to save it.

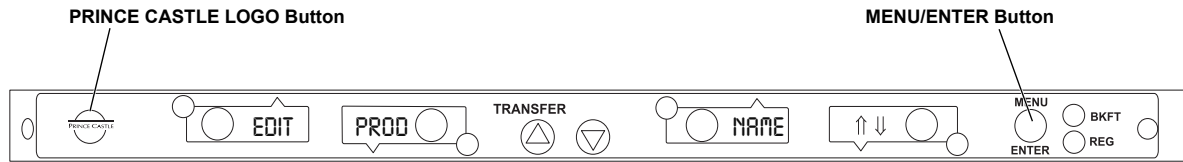


5 A. The display will show SET PROD TIME ↑ ↓. Repeat Steps 2 – 4 for any other product.
 B. Press and release the PRINCE CASTLE LOGO button at any time to exit the Program Mode and return to the Run Mode.



Changing Product Names

- 1** A. The EDIT PRODUCT NAME menu is used to change a default product name to one of your own choosing.
 - B. Press and hold the PRINCE CASTLE LOGO button, then immediately press and hold the MENU/ENTER button until the display shows one of the programming menus.
 - C. Use the UP or DOWN Arrow button to scroll to the EDIT PROD NAME ↑ ↓ menu.
- NOTE: The default names available for editing are listed on page 11.*



- 2** A. Press and release the MENU/ENTER button to enter the Edit Product Name menu. The display will read sel pROD XXXX ↑ ↓.
- B. Use the UP or DOWN Arrow button to scroll through the list of products.
- C. When the desired product is displayed, press the MENU/ENTER button to select it. The first letter (in this case, the E) will start blinking.



- 3** A. To change the blinking E, use the UP or DOWN Arrow button to scroll to the desired letter/number/symbol.
- B. When the desired selection is displayed, press the PAN button (to the left or right of the selected display) to move to the next digit.
- C. Repeat for all digits.



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

- 4** When all four digits have been changed, press the MENU/ENTER button to save the new name.

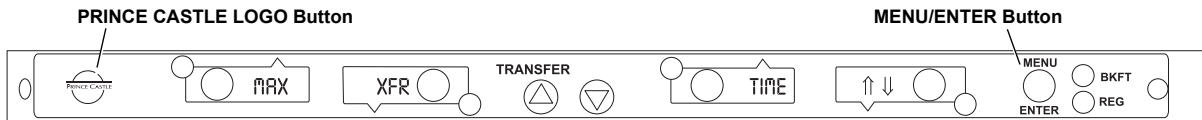


- 5** A. The display will show EDIT PROD NAME ↑ ↓. Repeat Steps 2 – 4 for any other product.
 - B. Press and release the PRINCE CASTLE LOGO button at any time to exit the Program Mode and return to the Run Mode.
- NOTE: If the MENU/ENTER button has not been pressed to save any changes, the program will revert to the original names.*



Set Maximum Transfer Time

- 1
 - A. The SET MAXIMUM TRANSFER TIME menu is used to set the amount of time allowed to make a product transfer from one pan to another.
 - B. Press and hold the PRINCE CASTLE LOGO button, then immediately press and hold the MENU/ENTER button until the display shows one of the programming menus.
 - C. Use the UP or DOWN Arrow button to scroll to the max xFR TIME ↑ ↓ (Set Maximum Transfer Time) menu.



- 2
 - A. Press and release the MENU/ENTER button to enter the Set Maximum Transfer Time menu.
 - B. The display shows max xFR :20 ↑ ↓. This shows a value of 20 seconds.



- 3
 - A. To change the time, use the UP or DOWN Arrow button to scroll to the desired time. When the desired selection is displayed, press the MENU/ENTER button to enter the selection.
 - B. 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 MENU/ENTER button has not been pressed to save any changes, the program will revert to the original time.



Product Linking

Any Timer Bar (except bun holding timers) can be linked to others (see Special Programming Mode, this page). If Timer Bars are set to the same link group, any product started in any bar of the same group will be compared to all other products in the same group, and its LED color will be determined based on all timers in the group with the same product (not just with all timers on its own Timer Bar).

Special Programming Mode

- 1
 - A. Press and hold the PRINCE CASTLE LOGO button then immediately press and hold the MENU/ENTER button. Hold both buttons for six seconds. The displays will change to show the first menu — depending on model.
 - B. Press and release the UP and DOWN Arrow buttons to scroll through the list of Special Modes.



2 Set Link Group

- A. When the displays show SET LINK GRP_x ↑ ↓ ENTR, the X indicates the currently assigned Link Group. Press and release the MENU/ENTER button to set the Link Group Mode.
- B. The link group number (X) will flash. Press and release the UP and DOWN Arrow buttons to change the group number. The maximum number allowed is 3, and the minimum is 0. When a Timer Bar is assigned to Link Group 0, it is isolated and not associated with any other Timer Bar (linking is disabled).
- C. When the desired link group is displayed, press and release the MENU/ENTER button to save it. The program will revert to Set Link Group Mode.



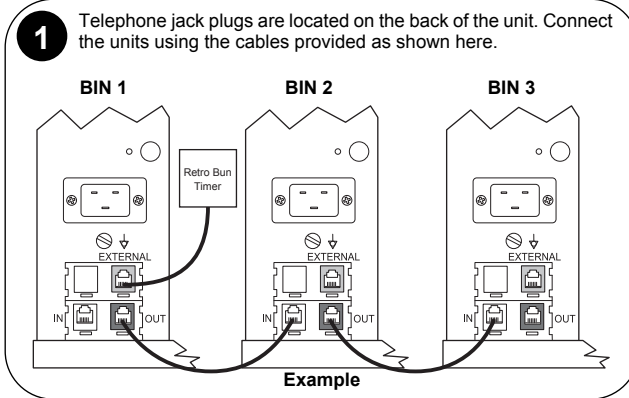
CastleNet® Communications Network

The Prince Castle DHB-BK Bins, Retro Bun Timer, and New Bun Cabinet Timers can be inter-connected to form the CastleNet® Communication Network. The network can be used for data transfer between bins and timers for menu updates or to transfer product Hold time from bin-to-bin. A PDA (or similar device) or a notebook with Prince Castle MenuView® software is used to connect to the network and enter the desired changes.

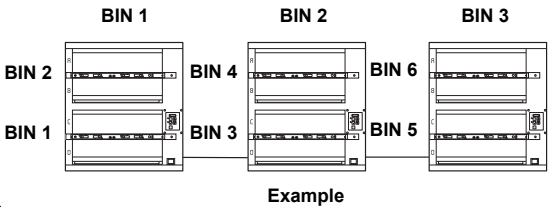
Each bin is supplied with a standard 25' cable and allows units to be "daisy-chained" together to form the network. If cable is too short, use Prince Castle Extender Cable Kit, P/N PC-COMEXT.

The factory default address for Main bins and timers is address 1. The factory default address for Specialty bins and timers is address 2. If a third bin is used, the address must be set at 3.

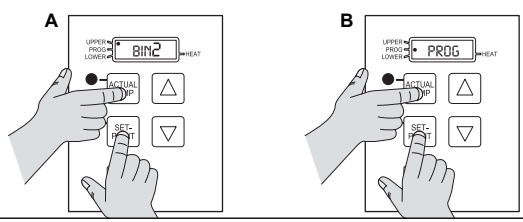
The factory default address for the Retro Bun Timer is BUNF.



2 **IMPORTANT:** Each timer must have a different address. If a location has three bins, it is recommended that the bins and timers be set consecutively to addresses 1 through 6.



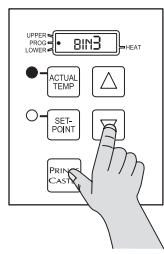
3 A Turn the power switch off, wait 15 seconds. Turn the switch to ON while pressing and holding the ACTUAL TEMP and SETPOINT buttons. The display will show the current bin address.
B. Continue to hold the buttons until PROG LED turns on.



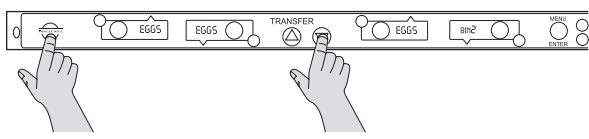
4 Use the UP or DOWN Arrow button to scroll to the desired address. Press the PRINCE CASTLE LOGO button to store the new address.

Available addresses are:
BIN1 thru BIN9, BINA, BINB, BINC, BIND, BINE and BINF.

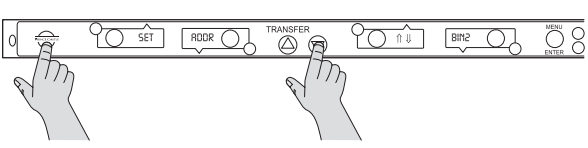
IMPORTANT: Continue to Step 5 to check the timer address. No two timers can have the same address.



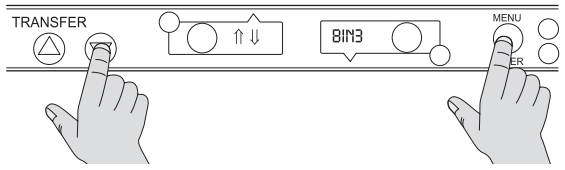
5 To check the timer address, press and hold the PRINCE CASTLE LOGO button and the DOWN Arrow button. The current timer address will be displayed in the far right timer display. To change the timer address, proceed to Step 6.



6 To change the timer address, turn the unit power switch off and wait 15 seconds. Turn the power switch back on and immediately press and hold the PRINCE CASTLE LOGO button and the DOWN Arrow button for approximately 6 seconds or until the display shows SET ADDR ↓ Bin2. The address number will blink on/off.



7 Use the UP or DOWN Arrow button to scroll to the desired address. Press the MENU/ENTER button to store the new address and return to normal Operating Mode.
Available addresses are:
BIN1 thru BIN9, BINA, BINB, BINC, BIND, BINE and BINF.



Factory Presets

Product Menu Details

| Product | Display Name | Hold Minutes ¹ | Cook-More Minutes ¹ |
|---------------------|-------------------|---------------------------|--------------------------------|
| Eggs | EGGS | 45 | 6 |
| Biscuits | BISC | 60 | 17 |
| Sausage | SAUS | 60 | 1 |
| French Toast | FR-T | 30 | 2 |
| Ham | HAM | 120 | 2 |
| Fish | FISH | 45 | 4 |
| Chicken Crisp | CRSP | 45 | 3 |
| Chicken Patty | CHKN | 60 | 4 |
| Chicken Tenders | TEND | 30 | 3 |
| Burgers | BURG | 60 | 3 |
| Whoppers | WHPR | 45 | 3 |
| BK Broiler | -BK- | 60 | 6 |
| Bacon | BACN ₂ | 120 | 2 |
| Poppers | POP ₂ | 30 | 2 |
| Mozzarella Stick | MOZ ₂ | 30 | 2 |
| Spicy Chicken Wings | SPCY ₂ | 60 | 3 |
| Experimental #1 | EXP1 ₂ | 60 | 2 |
| Experimental #2 | EXP2 ₂ | 60 | 2 |
| Experimental #3 | EXP3 ₂ | 60 | 2 |
| Experimental #4 | EXP4 ₂ | 60 | 2 |
| Experimental #5 | EXP5 ₂ | 60 | 2 |
| Experimental #6 | EXP6 ₂ | 60 | 2 |
| Experimental #7 | EXP7 ₂ | 60 | 2 |
| Experimental #8 | EXP8 ₂ | 60 | 2 |
| Experimental #9 | EXP9 ₂ | 60 | 2 |

1. Hold and Cook-More times may be re-programmed. See page 7.
2. Product abbreviations BACN through EXP9 may be reprogrammed. See page 8.

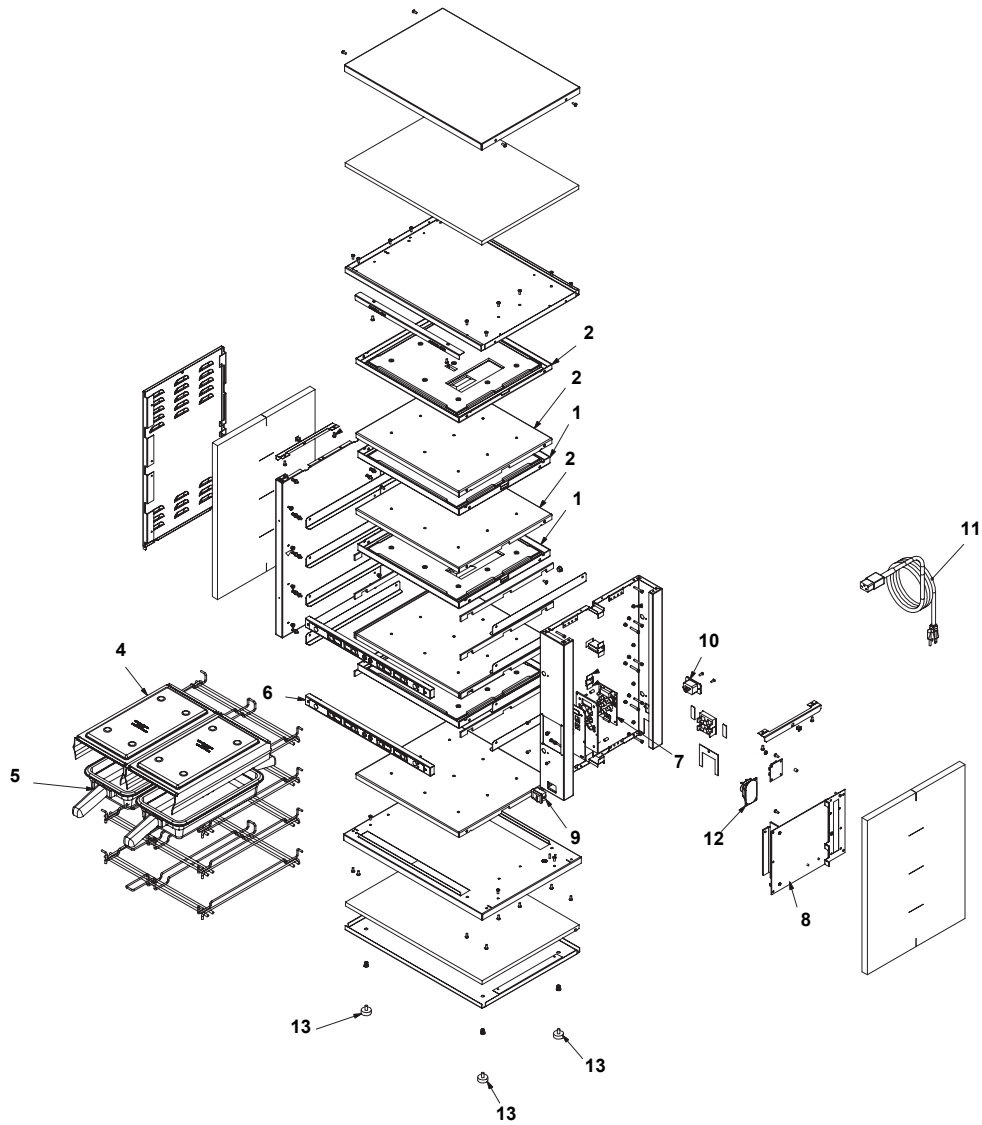
Menus

| | | | | | |
|------|------|------|------|------|------|
| HAM | BACN | SAUS | EGGS | MNU1 | Bkft |
| WHPR | BURG | WHPR | BURG | MNU2 | Reg |
| TEND | CRSP | CHKN | FISH | MNU3 | Reg |
| SPCY | POP | MOZ | -BK- | MNU4 | Reg |
| TEND | CHKN | CRSP | SPCY | MNU5 | Reg |
| HAM | BACN | EGGS | EGGS | MNU6 | Bkft |

Troubleshooting

| PROBLEM | PROBABLE CAUSE | SOLUTION |
|--|---|---|
| Display flashes Opn and rEL. | Open relay. Circuit inoperable. | Replace power circuit board. |
| Display flashes SHr and rEL. | Shorted relay. Circuit inoperable. Open heater. Unplugged ribbon cable between power and main circuit boards. | Replace power circuit board. Test heater resistance (150.2 Ohms). Replace heater if necessary. Verify ribbon cable connection. |
| Display flashes Opn and rEL. | Temperature is below 75°F. Heater inoperable. Probe inoperable. Relay inoperable. | Normal display during warmup. Test heater resistance (150.2 Ohms). Check for open thermocouple wires from probe. Replace heater/probe assembly. Replace power circuit board. |
| Display shows HHH for an extended period of time and heater surface temperature is hot. | Temperature is above 300°F (abnormal operation). | Diagnostic circuit inoperable. Replace power circuit board. |
| Display shows HHH for an extended period of time and heater surface temperature is cool. | Probe is inoperable. | Check for pinched thermocouple wires from probe. Replace heater/probe assembly. |

Exploded View and Parts List



| Ref. | Part No. | Description | Ref. | Part No. | Description |
|------|-------------|---|------|------------|--------------------------|
| 1 | 542-154S | Heater Assy Kit (Upper) | 8 | 541-802S | Main PCB Kit |
| 2 | 542-153S | Heater Assy Kit (Lower) | 9 | 78-184S | Lighted Rocker Switch |
| N/S | 88-600-200S | Fuse Kit (Pkg of 10) (Fuse on Main PCB) | 10 | 88-609S | Power Inlet Connector |
| 4 | 541-723E4S | Pan Cover Kit (Pkg of 4) | 11 | 72-200-15S | Power Cord |
| 5 | 155695n-12 | 1/3 Size Dual Handle Pans (Pkg of 12) | 12 | 541-959S | Audio Interface PCB |
| 6 | 541-TSM4SCS | Timer Bar | 13 | 197-232S | Mounting Foot (Pkg of 4) |
| 7 | 541-719S | Display PCB Kit | | | |

Wiring Diagram

