Service Manual



Extend Holding Bin EHB Series



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.

Note: When connected to the Kitchen Minder or Sicom CHEF, the programming functions are disabled on the button bar.

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Model Identification 'CE' is present if bin Extended Country designation can be used outside Holding Bin Number of of the US Trays per e.g. "CA" is Canada Shelf 'A' is present if Number of Shelves there are auxiliary timer bars (bars on the back of the unit)

Model Specifications

STYLE	MODEL NO.	WIDTH (mm)	HEIGHT (mm)	DEPTH (mm)	WEIGHT (kgs)	VOLTAGE	AMPS
2H X 2W	FHB22A	19 7 (500)	11 1 (282)	14 1 (358)	64 lbs (29.0)	208-240	38-43
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



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.



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.



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Product Identification



ON FOODSERVICE TECHNOLOGIES









EHB Series

Operation (continued)





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 electrical receptacle.
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.

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Setting the Temperature





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Extend Holding Bin EHB Series Changing the Hold and Cook-More Times 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 MENU/ENTER button until the display shows one of six programming menus. Use the black UP or DOWN arrows to scroll to PROD TIME 11 ENTR. Press and release the **MENU/ENTER** button to enter the Set Product Time menu. The display will show **BISC TIME** ↑↓ **ENTR**. 2 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. 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 60 ↑↓ ENTR. The display will show $18 \uparrow \downarrow ENTR$. 3 Use the UP or DOWN Arrow button to scroll to the desired Use the **UP** or **DOWN** Arrow button to scroll to the desired Hold time. When the desired Hold time is displayed, press Cook-More time. When the desired Cook-More time is the MENU/ENTER button to save the desired Hold time. displayed, press the MENU/ENTER button to save it. NOTE: Hold time cannot be reduced to less than the Cook-More **NOTE:** Cook-More time cannot be increased to more than the time plus one minute. NOTE: All times are displayed in minutes only. Hold time, minus one minute. For example, 2 and half hours is displayed as 150 The display will show **BISCTIME** ↑ ↓ **ENTR**. Repeat Steps 2 – 4 for any other product. 5 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 values.





EHB Series



Extend Holding Bin PRI **EHB Series** MON FOODSERVICE TECHNOLOGIES **Changing Temperature Scale** 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 MENU/ENTER button until the display shows one of six programming menus. Use black the **UP** or **DOWN** Arrow button to scroll to the **SET F/C** $\uparrow \downarrow$ **ENTR** (Set Temperature Scale) menu. Press the MENU/ENTER button to enter the menu. 2 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 MENU/ENTER button to confirm the selection. Press the PRINCE CASTLE LOGO button to save the setting.

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Press the **MENU/ENTER** button to confirm the selection. Press the **PRINCE CASTLE LOGO** button to save the setting.



Extend Holding Bin





Loading Factory Presets



Turn power off to the unit. Flip the power button on "—" and immediately press and hold the black *UP* and *DOWN* arrows on the button bar.



The button bar will read **PRESET LOADED**.

2

3

If bin has more than one shelf, repeat the procedure for remaining button bar on the main (front) side only. Presets are automatically loaded onto the auxiliary (back) bars when done from the main side.

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Default Menu Items

		BREAKFAS	ST PRODUCTS		
		HOLD TIME	COOK MORE TIME		
KM NAME	PRODUCT NAME	(MINUTES)	(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		
		HOLD TIME	COOK MORE TIME		
KM NAME	PRODUCT NAME	(MINUTES)	(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		
		HOLD TIME	COOK MORE TIME		
KM NAME	PRODUCT NAME	(MINUTES)	(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 I	PRODUCTS		
		HOLD TIME	COOK MORE TIME		
KM NAME	PRODUCT NAME	(MINUTES)	(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





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			
Unit will not heat up	Wrong power cord, loose connection on power switch and/or heater	Check voltage and amperage of outlet (need 208-240 VAC, 20 A)			
		Replace power cord			
Unit heats up but timer bars do not work	Timer bar wiring disconnected, timer bar is defective	Check timer bar wiring connection, Replace timer bars			
		Adjust temperature set point setting,			
Unit under/over heats	Check temperature settings	See management system			
Display flashes OPN and	Open relay, circuit or heater inoperable	Test heater resistance, isolate malfunc- tioning heater(s) (see p. 22 & 23)			
REL		Replace heater(s); otherwise, replace PCB			
Display flashes SHR and	Shorted relay, circuit inoperable,	Test heater resistance, isolate malfunc- tioning heater(s) (see p. 22 & 23)			
REL	open neater, unplugged hobon cable	Replace heater(s), replace ribbon cable; otherwise replace PCB			
Display shows HHH for extended period and heat-	Temperature is above 300 °F (149 °C),	Diagnostic circuit in-operable,			
er surface temperature is hot	Abnormal operation	Replace PCB			
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 oper- ator 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.

EHB Series

Error Code Matrix

WARNING: This list contains all Error Codes that might be found during unit operation, display on Timer Bars or Display panel.

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ABRV.	STATUS MESSAGE	ABRV.	STATUS MESSAGE
BL	Bootloader running	P	Loading presets
BLU	Bootloader USB detected	F	Fahrenheit selected
BLCL	Loading firmware	C	Celsius selected
BLCF	Flashing firmware		Booting application
BLC	Firmware loaded on main board	TOO	Тоо
BLCS	Loading settings file	LO	Low
BLSF	Flashing settings file	н	High
BLBL	Loading timer bar firmware	PASS	Test passed
BLBF	Flashing timer bar firmware	FAIL	Test failed
BLB	Timer bars loaded	AAAA	Initializing
BLBS	Loading timer bar settings file	ENSP	Ethernet setup
BLS	Timer bar settings loaded	BLSS	Successfully changed Ethernet settings
BLEC	Loading Ethernet configuration file	BL17	No DHBFWBIN.TXT file
BLEF	Flashing Ethernet configuration	BLF2	Error flashing firmware on main board
BLE1	Error loading DHBFWBIN.TXT	BLE3	Error finding main board firmware file
BL00	Bootloading timer bars second control board	BLE4	Error loading DHBEEBIN.TXT
BL01	Bootloading one more timer bar	BLF5	Error flashing settings file
BL02	Bootloading both main and aux timer bars	BLE6	Error finding image menu file
BSnn	Bootloading timer bar settings nn more node	BLE7	Error loading DHBFWBAR.TXT
Bnxx	Finished bootloading xx timer bars	BLF8	Error flashing main timer bar file
DAYx	Daypart x	BLF9	Error flashing main timer bar header
LLL	Heater temperature low	BE10	Error finding main timer bar file
OFF	Heater off	BE11	Error loading aux timer bar file
ННН	Heater temperature high	BE12	Error flashing aux timer bar header
REL	Relay	BE13	Error finding aux aux timer bar file
SHR	Shorted	BE14	Error verifying firmware version flash hdr
OPN	Open	BE15	Error loading DHBEEBAR.TXT
HOLD	Wait for operation to complete	BE16	Error verifying firmware version flash hdr
CAL	Calibrate	BE17	Error loading timer bar settings file
CHEC	Check results of calibration	BE18	Error finding timer bar settings file
DONE	Done	BE20	Error loading Ethernet configuration file
ERR	Calibration error	BLNU	No USB flash stick detected
PRB	Probe	NOBL	No valid application program
PUSH	Push	BLFB	Failed to bootload timer bars
BTN	Button	ENER	Failed to set Ethernet settings
REUP	Main PCB and bar programs do not match	nCAL	PCB was not factory-calibrated
### (3 digits)	PCB firmware version (e.g. "529" is v5.29)		



EHB Series

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 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)

- e. BL00 (0 timer bars left 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.

EHB Series

How to change Timer Bar





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How to change Heater Panel



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How to change PC Board (Non 3X4)

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PC BOARD INSTALLATION INSTRUCTIONS (NON-3X4)

CAUTION: TURN OFF AND UNPLUG UNIT BEFORE INSTALLATION.

STEPS:

- 1) REMOVE (QTY-1) SCREW THAT HOLDS THE RIGHT-HAND SIDE PANEL ONTO THE UNIT AND CAREFULLY SET PCB PANEL DOWN AT 90° ANGLE AS SHOWN (DO NOT DISCARD HARDWARE).
- 2) DISCONNECT ALL WIRING CONNECTIONS TO THE PC BOARD, AND NOTE THE ORIENTATION OF THE BOARD AND LOCATION OF EACH CONNECTION FOR USE WHEN INSTALLING THE NEW PC BOARD (REFER TO PG. 29).
- 3) REMOVE (QTY-5) SCREWS THAT SECURE PC BOARD TO PANEL (DO NOT DISCARD HARDWARE).
- 4) INSTALL NEW PC BOARD WITH (QTY-5) SCREWS AND WASHERS, AND REATTACH ALL WIRING AS PREVIOUSLY NOTED.
- 5) CLOSE SIDE PANEL WITHOUT PINCHING ANY WIRES, AND SECURE USING SCREW (QTY-1) REMOVED IN STEP (1).
- 6) POWER ON THE UNIT TO ENSURE FUNCTIONALITY. IF NEEDED, LOAD PRESETS ONTO BARS (INSTRUCTIONS ON PG. 15).







EHB Series

How to change 3X4 PC Boards



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How to change USB Cord

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How to change Ethernet cable



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How to change Display Assembly

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EHB Series

How to identify RELY SHRT or RELY OPEN heaters (Non-3X4) PRINCECAS "RELY SHORT/OPEN" HEATER DIAGNOSTIC PROCEDURE 355 EAST KEHOE BLVD STREAM, IL, 60155 CAUTION: TURN OFF AND UNPLUG UNIT BEFORE INSTALLATION. ONE 630-462-5800 ~ TOLL FREE 1-800-PCASTLE FAY 630-16 WWW.PRINCECASTLE.COM STEPS: 1) REMOVE (QTY-1) SCREW THAT HOLDS THE RIGHT HAND PC SIDE PANEL ONTO THE UNIT AND **TOOLS REQUIRED** CAREFULLY SET PCB PANEL DOWN AT 90° ANGLE AS SHOWN (DO NOT DISCARD HARDWARE). 2) UNPLUG ALL HEATERS & THERMOCOUPLES (FIGURE 1). 3) PLUG HEATER AND TC LABELED "1" INTO THEIR PORTS. 4) POWER UNIT ON. 5) WAIT FOR UNIT TO WARM UP. IF "RELY SHRT/OPEN" APPEARS WHILE THE HEATER WARMS UP. THAT HEATER PANEL MUST BE REPLACED. OTHERWISE, POWER UNIT OFF AND REPEAT STEPS SCREWDRIVER- #2 PHILLIPS 3-5 FOR REMAINING HEATER CONNECTORS (2, 3, AND 4 - EACH ONE AT A TIME) UNTIL THE MALFUNCTIONAL HEATER IS FOUND (FIGURE 2) 6) REPLACE MALFUNCTIONAL HEATER PANEL ASSEMBLY. (SEE BOM FOR HEATER SHELF LOCATION TO MATCH THE CORRESPONDING SERVICE KIT PART NO.) FIGURE 1: REPEAT FOR REMAINING HTRS ALL HEATER & TC WIRES REMOVED UNTIL "RELY" MESSAGE SHOWS START AT HTR 1 & TC 1 FIGURE 2: ISOLATE EACH HEATER UNTIL BAD ONE IS FOUND 540-549revC-EN 27 Printed in USA 04/17 © 2017

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How to identify RELY SHRT or RELY OPEN heaters (3X4)

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"RELY SHORT/OPEN" HEATER DIAGNOSTIC PROCEDURE

CAUTION: TURN OFF AND UNPLUG UNIT BEFORE INSTALLATION.

STEPS:

- 1) REMOVE (QTY-1) SCREW THAT HOLDS THE RIGHT HAND PC SIDE PANEL ONTO THE UNIT AND CAREFULLY SET PCB PANEL DOWN AT 90° ANGLE AS SHOWN (DO NOT DISCARD HARDWARE).
- 2) UNPLUG ALL HEATERS & THERMOCOUPLES (FIGURE 1).
- 3) PLUG HEATER AND TC LABELED "1" INTO THEIR PORTS.
- 4) POWER UNIT ON.
- 5) WAIT FOR UNIT TO WARM UP. IF "RELY SHRT/OPEN" APPEARS WHILE THE HEATER WARMS UP, THAT HEATER PANEL MUST BE REPLACED. OTHERWISE, POWER UNIT OFF AND REPEAT STEPS 3-5 FOR REMAINING HEATER CONNECTORS (2, 3, 4, 5, AND 6 - EACH ONE AT A TIME) UNTIL THE MALFUNCTIONAL HEATER IS FOUND (FIGURE 2)
- 6) REPLACE MALFUNCTIONAL HEATER PANEL ASSEMBLY. (SEE BOM FOR HEATER SHELF LOCATION TO MATCH THE CORRESPONDING SERVICE KIT PART NO.)



FIGURE 1: ALL HEATER & TC WIRES REMOVED



FIGURE 2: ISOLATE EACH HEATER UNTIL BAD ONE IS FOUND

TOOLS REQUIRED







Wiring Diagrams





EHB Series



Wiring Diagrams



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Exploded View



ITEM NO.	PART NUMBER	DESCRIPTION	ITEM NO.	PART NUM- BER	DESCRIPTION	ITEM NO.	PART NUM- BER	DESCRIPTION	
1	197-232S	FOOT (4 PACK)	7	510-243S*	SERVICE KIT BB 4CH AUX	16	88-709-2-11S	SPEAKER	
2	540-1107S	HEATER ASSY LOWER	8	540-1158S	LATCH, CATCH	17	95-2011S	ETHERNET CONNECTOR	
		SHELF, 2W	9	540-1002S	LID (4 PACK)	18	88-824S	LINE FILTER	
3	540-1109S	HEATER ASSY, UPPER, 2W	11	72-476S	POWER CORD				
			12	540-1215S*	OVERLAY AND DISPLAY	*Performended sparse for			
4	540-1111S	SHELF 2W	13	78-184S	POWER SWITCH	st	ocking	spares for	
5	540-1120S	UPPER HEATER TOP SHELF	14	95-1819S	USB CORD				
6	510-242S*	TIMER BAR, 4 MAIN	15	540-1263S*	PCB, CONTROL BOARD				

1. AUX TIMER BAR (510-243S) USED ONLY ON EHB22A AND EHB22ACE.

2. POWER CORD (72-476S) USED ONLY ON EHB22 AND EHB22A. USE POWER CORD (72-404S) FOR EHB22CE AND EHB22ACE.

3. LINE FILTER (88-824S) ONLY USED ON EHB22ACE AND EHB22CE.

EHB Series



Exploded View



ITEM NO.	PART NUMBER	DESCRIPTION	ITEM NO.	PART NUM- BER	DESCRIPTION	ITEM NO.	PART NUM- BER	DESCRIPTION
1	197-232S	FOOT (4 PACK)	7	510-241S*	SERVICE KIT BB 8CH AUX	15	540-1265S*	PCB, CONTROL BOARD
2	540-11185	HEATER ASSY LOWER	8	540-1158S	LATCH, CATCH	16	95-2011S	ETHERNET CONNECTOR
	510 11105	SHELF, UPPER 3W		5 40 40000	LID (4 PACK)	17	88-824S	POWER FILTER
3	540-1123S	HEATER ASSY, TOP SHELF	9	540-10025	(NOT SHOWN)	18	88-709-2-11S	SPEAKER
			11	72-476S	POWER CORD			
4	540-1116S	3W	12	540-1215S*	OVERLAY AND DISPLAY	*Recommended spares for stocking		spares for
5	540-1122S	LOWER HEATER BASE	13	78-184S	POWER SWITCH		5	
6	F10 2405*		14	95-1819S	USB CORD			
ь	510-2405*	HIVIER BAR, 6 MAIN						

AUX TIMER BAR (510-241S) USED ONLY ON EHB23A. EHB23CE USES MAIN BAR (510-269S) AND EHB23ACE USES AUX BAR (510-272S). 1.

2. POWER CORD (72-476S) USED ONLY ON EHB23 AND EHB23A. USE POWER CORD 72-404S FOR EHB23CE AND EHB23ACE.

3. LINE FILTER (88-824S) ONLY USED ON EHB23ACE AND EHB23CE.

4. FOR MODEL # EHB23V, USE MAIN BOARD PART # 540-1290S. FOR MODEL # EHB23CE OR EHB23ACE, USE # 540-1252S.



Exploded View



EHB24A

ITEM NO.	PART NUMBER	DESCRIPTION	ITEM NO.	PART NUMBER	DESCRIPTION	ITEM NO.	PART NUM- BER	DESCRIPTION
1	197-232S	FOOT (4 PACK)	7	510-099S*	SERVICE KIT BB 8CH AUX	15	540-1232S*	PCB, CONTROL BOARD
2	540-12265	HEATER ASSY LOWER	8	540-1158S	LATCH, CATCH	16	95-2011S	ETHERNET CONNECTOR
-	340 12203	SHELF, UPPER 4W		F 40 40000	LID (4 PACK)	17	88-824S	POWER FILTER
3	540-1224S	HEATER ASSY, TOP SHELF	9	540-10025	(NOT SHOWN)	18	88-709-2-11S	SPEAKER
			11	72-476S	POWER CORD	*F	Recommended	spares for
4	540-1222S	4W	12	540-1215S*	OVERLAY AND DISPLAY	st	ocking	
5	540-1072S	LOWER HEATER BASE	13	78-184S	POWER SWITCH			
c	F10 0095*		14	95-1819S	USB CORD			
ь	210-0982*	TIVIEK BAR, 8 MAIN	L			-		

AUX TIMER BAR (510-099S) USED ONLY ON EHB24A. EHB24CE USES MAIN BAR (510-257S) AND EHB24ACE USES AUX BAR (510-1. 258S).

POWER CORD (72-476S) USED ONLY ON EHB24 AND EHB24A. USE POWER CORD 72-404S FOR EHB24CE AND EHB24ACE. 2.

3. LINE FILTER 88-824S ONLY USED ON EHB24ACE AND EHB24CE.

4. FOR MODEL # EHB24V, USE MAIN BOARD PART # 540-1286S. FOR MODEL # EHB24CE OR EHB24ACE, USE # 540-1392S.

EHB Series



Exploded View



ITEM NO.	PART NUMBER	DESCRIPTION	ITEM NO.	PART NUM- BER	DESCRIPTION	ITEM NO.	PART NUMBER	DESCRIPTION
1	197-232S	FOOT (4 PACK)	6	510-242S*	TIMER BAR, 4 MAIN	13	95-1819S	USB CORD
		HEATER ASSY, LOWER PAN-	7	510-243S*	SERVICE KIT BB 4CH AUX	14	95-2011S	ETHERNET CORD
2	540-1107S	EL, BOTTOM SHELF	8	540-1002S	LID (4 PACK)	15	88-824S	POWER FILTER
3	540-1109S	HEATER ASSY, LOWER	10	72-476S	POWER CORD	16	540-1267S*	MAIN BOARD
		SHELF, UPPER 4x2	11	540-1215S*	OVERLAY, DISPLAY BRD	17	88-709-2-11S	SPEAKER
4	540-1120S	HEATER ASSY, UPPER SHELF,TOP 4X2	12	78-184S	POWER SWITCH	18	540-1158S	KIT, LATCH CATCH
5	540-1111S	HEATER ASSY, UPPER SHELF BOTTOM 4X2				* st	Recommended s	spares for

AUX TIMER BAR (510-243S) USED ONLY ON EHB42A. EHB42CE USES MAIN BAR (510-275S) AND EHB42ACE USES AUX BAR (510-276S). 1.

POWER CORD (72-476S) USED ONLY ON EHB42 AND EHB42A. USE POWER CORD (72-404S) FOR EHB42CE AND EHB42ACE. 2.

3. LINE FILTER (88-824S) ONLY USED ON EHB42ACE AND EHB42CE.

4. FOR MODEL # EHB42V, USE MAIN BOARD PART # 540-1289S. FOR MODEL # EHB42CE OR EHB42ACE, USE # 540-1284S.



Exploded View



EHB32A

ITEM NO.	PART NUMBER	DESCRIPTION	ITEM NO.	PART NUM- BER	DESCRIPTION	ITEM NO.	PART NUMBER	DESCRIPTION
1	197-2325	FOOT (4 PACK)	7	510-278S*	SERVICE KIT BB 4CH AUX	16	540-1285S*	MAIN BOARD
		HEATED ASSV LOWED DAN	8	540-1002S	LID (4 PACK)			
2	540-1107S	FL BOTTOM SHELF	10	72-476S	POWER CORD	17	88-709-2-11S	SPEAKER
						18	540-11585	KIT, LATCH CATCH
з	540-11095	HEATER ASSY, LOWER	11	540-1215S*	OVERLAY, DISPLAY BRD	10	510 11505	
	510 11055	SHELF, UPPER 4x2	12	78-184S	POWER SWITCH	19	510-244S	MAIN BB, UPPER
4	540-11205	HEATER ASSY, UPPER	13	95-1819S	USB CORD			
· ·	510 11200	SHELF, TOP 4X2				20	510-245S	AUX BB UPPER
			14	95-2011S	ETHERNET CORD	I		
5	540-1111S	BOTTOM 4X2	15	88-824S	POWER FILTER	,	*Recommended	spares for
							stocking	
6	510-277S*	TIMER BAR, 4 MAIN						
	1. AUX TIMER BAR (510-278S) AND (510-248S) USED ONLY ON EHB32A AND EHB32ACE.							

POWER CORD (72-404S) USED ONLY ON EHB32 AND EHB32A. USE POWER CORD 72-404S FOR EHB32CE AND EHB32ACE. 2.

3. LINE FILTER 88-824s ONLY USED ON EHB32ACE AND EHB32CE.

EHB Series





ITEM NO.	PART NUMBER	DESCRIPTION	ITEM NO.	PART NUM- BER	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	540-11985	HEATER ASSY, LOWER PAN-	7	510-238S*	KIT BB 8CH MAIN TOP	15	78-184S	POWER SWITCH
-	540 11505	EL, BOTTOM SHELF	8	510-239S*	TIMER BAR 8 AUX TOP	16	95-1995S	USB CORD
3	540-1230S	HEATER ASSY, LOWER	9	510-099S*	TIMER BAR 8 AUX	17	540-1282S*	BOARD 1
			10	540-1158S	KIT, LATCH CATCH	18	540-1283S*	BOARD 2
4	540-1228S	SHELF,TOP 3X4	11	540-1002S	LID (4 PACK)	19	95-2012S	ETHERNET CONNECTOR
5	540-12295	HEATER ASSY, UPPER SHELF	13	72-476S	POWER CORD	20	88-824S	POWER FILTER
5	510 12255	BOTTOM 3X4				21	88-709-2-11S	SPEAKER

AUX TIMER BAR (510-099S) AND (510-239S) USED ONLY ON EHB34A. EHB34CE USES MAIN BOTTOM BAR (510-257S) AND MAIN TOP BAR (510-259S); EHB34ACE USES AUX BOTTOM BAR (510-258S) AND AUX TOP BAR (510-260S). 1.

POWER CORD (72-476S) USED ONLY ON EHB34 AND EHB34A. USE POWER CORD (72-404S) FOR EHB34CE AND EHB34ACE. 2.

LINE FILTER 88-824s ONLY USED ON EHB34ACE AND EHB34CE. 3.

FOR MODEL # EHB34V, USE MAIN BOARD 2 PART # 540-1288S. FOR MODEL # EHB34CE OR EHB34ACE, USE # 540-1239S. 4.

FOR MODEL # EHB34V, USE MAIN BOARD 1 PART # 540-1287S. FOR MODEL # EHB34CE OR EHB34ACE, 5. USE # 540-1238S.

*Recommended spares for stocking