



Waffle Baker

Owner's Manual

Models

WB1E, WB2E, and BWB1SE

This manual includes material related to installation, use, cleaning, and care. Exploded view[s], as well as any available parts list[s] and wiring diagrams pertaining to the unit covered by this manual are also included.

This manual must be read and understood by all persons using or installing this appliance. Contact your Star dealer if you have any questions concerning installation, use, or maintenance of this equipment.

DO NOT DISCARD THIS MANUAL.



BWB1SE



WB1E

LIMITED EQUIPMENT WARRANTY

Wells Manufacturing warranties new products to be free from defects in material and/or workmanship for a period of one [1] year from the date of original installation, except as noted below. Defects that occur as a result of normal use, within the time period and limitations defined in this warranty, will at Wells' discretion have the parts replaced or repaired by Wells or a Wells-authorized service agency.

THIS WARRANTY IS SUBJECT TO ALL LISTED CONDITIONS.

Repairs performed under this warranty are to be performed by a Wells authorized service agency. Wells will not be responsible for charges incurred or service performed by non-authorized repair agencies. In all cases, the nearest Wells-authorized service agency must be used. Wells will be responsible for normal labor charges incurred in the repair or replacement of a warranted product within 50 miles (80.5 km) of an authorized service agency. Time and expense charges for anything beyond that distance will be the responsibility of the owner. All labor will need to be performed during regular service hours. Any overtime premium will be charged to the owner. For all shipments outside the U.S.A. and Canada, please see the International Warranty for specific details. It is the responsibility of the owner to inspect and report any shipping damage claims, hidden or otherwise, promptly following delivery. No mileage or travel charges will be honored on any equipment that is deemed portable. In general, equipment with a cord and plug weighing less than 50 lb. (22.7 kg) is considered portable and should be taken or shipped to the closest authorized service agency, transportation prepaid.

CONTACT

Should you require any assistance regarding the operation or maintenance of any Wells equipment; write, phone, fax or email our service department. In all correspondence mention the model number and serial number of your unit, as well as the voltage or type of gas you are using.

Business hours are 8:00 a.m. to 4:30 p.m. Central Standard Time (CST)

Telephone: (800)-264-7827

Fax: (314)-781-2714

Email: Customerservice@star-mfg.com

www.wells-mfg.com

WARRANTY EXCLUSIONS

THE FOLLOWING WILL NOT BE COVERED UNDER WARRANTY.

- Any product which has not been used, cleaned, maintained, or installed in accordance with the directions published in the appropriate installation sheet and/or owner's manual as well as national and local codes, including incorrect gas, electrical, or water connection. Lang is not liable for any unit which has been mishandled, abused, misapplied, subjected to chlorides, harsh chemicals, or caustic cleaners, damaged from exposure to hard water, modified by unauthorized personnel, damaged by flood, fire, or other acts of nature [or God], or which have an altered or missing serial number.
- Installation, labor, and job checkouts, calibration of heat controls, air and gas burner/bypass/pilot adjustments, gas or electrical system checks, voltage and phase conversions, cleaning of equipment, or seasoning of griddle surface.
- Replacement of fuses or resetting of circuit breakers, safety controls, or reset buttons.
- Replacement of broken or damaged glass components, quartz heating elements, and light bulbs.
- Labor charges for all removable parts in gas charbroilers and hotplates, including but not limited to burners, grates, and radiants.
- Any labor charges incurred by delays, waiting time, or operating restrictions that hinder a service technician's ability to perform service.
- Replacement of items subject to normal wear or items that can easily be replaced during a daily cleaning routine, such as but not limited to knobs, bulbs, fuses, quartz heating elements, baskets, racks, and grease drawers.
- Components that should be replaced when damaged or worn, but have been field-repaired instead [eg. field-welded fry pots]
- Any loss of business or profits.

ADDITIONAL WARRANTIES

- Specific/chain specific versions may also have additional and/or extended warranties.

PRODUCTS	PARTS	LABOR
Universal ventless hoods (WVU)	1 year	1 year
Canopy ventless hoods (WVC)	1 year	1 year
*Universal ventless hoods and/or canopy ventless hoods purchased with approved Southbend-Star electric equipment *Southbend-Star approved electric equipment purchased and installed under ventless hood **Universal Ventless Hood and Southbend-Star electric equipment must be on the same PO and listed on the ventless start-up document for the 2 year warranty to apply	2 years	2 years
"Cook'n Hold" equipment [HW10, HWSMP, LLSC7, LLSC7WA, LLSC1, and LLSC11WA]	2 years	1 year
Cast iron grates, burners; and burner shields	1 year	
Wells parts sold to repair equipment	90 days	
Service First	1 year	

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NOTES

SAFETY SYMBOLS

These symbols are intended to alert the user to the presence of important operating and maintenance instructions in the manual accompanying the appliance.



THOROUGHLY INSPECT YOUR UNIT ON ARRIVAL



This unit has been tested for proper operation before leaving our plant to ensure delivery of your unit in perfect condition. However, there are instances in which the unit may be damaged in transit. In the event you discover any type of damage to your product upon receipt, you must immediately contact the transportation company who delivered the item to you and initiate your claim with that company. If this procedure is not followed, it may affect the warranty status of the unit. If damage or loss is not apparent until after equipment is unpacked, a request for inspection of concealed damage must be made with carrier within 15 days. Please record the model number, serial number, voltage, and purchase date in the area below at the time of receipt..

Model Number _____

Serial Number _____

Voltage _____

Purchase Date _____

MAINTENANCE AND REPAIRS

Contact your local authorized service agent for service or required maintenance. Please have the information in the above fields ready when you call to ensure a faster service.

Using any part other than genuine Wells factory supplied parts relieves the manufacturer of all liability. Due to periodic changes in designs, methods, procedures, policies, and regulations, the specifications contained in this document are subject to change without notice. Wells reserves the right to change product specifications and design without notice. In regards to previously purchased equipment, such revisions do not entitle the buyer to corresponding changes, improvements, additions or replacements. While Wells Manufacturing exercises good faith efforts to provide information that is accurate, we are not responsible for errors or omissions in information provided or conclusions reached as a result of using the specifications. By using the information provided, the user assumes all risks in connection with such use. When performing maintenance, power to the unit should be unplugged or turned off.

PLEASE REFER TO THE WARRANTY PAGE FOR SPECIFIC WARRANTY INFORMATION.

AUTHORIZED SERVICE AGENT LISTING

Reference the listing provided with the unit or for an updated listing go to the website or call customer service to find an agent.

Business hours: 8:00 a.m. to 4:30 p.m. Central Standard Time

Telephone: 800-264-7827

Fax: 314-781-2714

Email: customerservice@star-mfg.com

Website: www.wells-mfg.com

Please visit www.starwebconnect.com/manuals.aspx for digital versions of any documents associated with this unit.



GENERAL SAFETY INFORMATION

This equipment is designed and sold for commercial use only, and is intended for use by personnel trained and experienced in its operation. This is not sold for consumer use in and around the home nor for use directly by the general public in food service locations.

Before using your new equipment, read and understand all the instructions and labels associated with the unit prior to putting it into operation. Make sure all people associated with its use understand the units operation and safety before they use the unit.

GENERAL INSTALLATION INFORMATION

The unit will come with drip tray [or two on WB2E models], handle [or two on WB2E models], and adjustable feet which will need to be installed. To install handles, begin by lightly lubricating the threaded boss with vegetable oil. Turn the handles, threading them onto the boss until they are fully seated. Handles are not removable once installed. To install the feet safely position the unit and thread each foot in place. Place the unit on a flat, non-combustible surface suitable for use [concrete, terrazzo, tile, or metal surface recommended] and adjust feet until all are contacting surface evenly to prevent the possibility of the unit tipping.

The unit is shipped ready to plug into a standard outlet specified for its voltage and amp draw. If improper electrical supply can be determined through troubleshooting, contact a qualified electrician prior to using the unit. Removal or replacement of the power cord or plug will void the warranty. Should you require assistance, contact your local authorized service agent for any service or required maintenance.

Allow enough space above the unit, in its intended location, for the top to safely swing open.

Before using the unit for the first time, ensure to clean it properly and season the grids. Refer to the Cleaning Procedure section for cleaning instructions. To season the grids, begin by brushing on commercial waffle baker release agent on upper and lower grids. Carefully lower the upper grid until closed. Turn the power switch on and allow the unit to pre-heat for twenty [20] minutes. At this point lift open the upper grid and re-coat both grids. The unit should now be ready to use.

ELECTRICAL CONNECTION

Before making any electrical connection to this unit, check that the power supply is adequate for the voltage, amperage, and requirements stated on the rating plate. This unit will require a receptacle. Make certain to disconnect the unit from the power source before installing or removing any parts. Be absolutely sure that the ground connection for the receptacle is properly wired. Do not connect equipment to power without proper ground connections. Improper grounding may result in personal injury or fatality.



DO NOT CUT OR REMOVE THE PLUG OR GROUNDING PRONG FROM THE PLUG.



CONNECT/PLUG UNIT INTO DEDICATED AC LINE ONLY SPECIFIED ON THE DATA PLATE OF THE UNIT.



DO NOT IMMERSE OR LET THE UNIT STAND IN WATER.

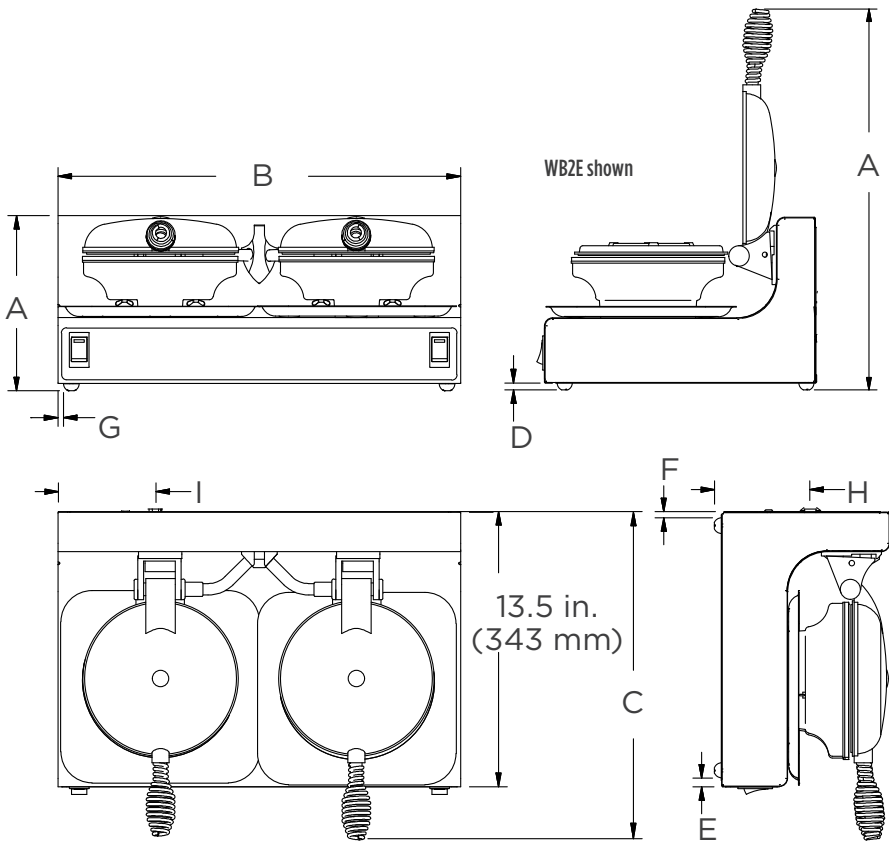


DO NOT HOSE DOWN THE UNIT OR THE TABLE/COUNTER IF THE UNIT IS ON THE TABLE/COUNTER.



KEEP AWAY FROM RUNNING WATER.

SPECIFICATIONS



**ELECTRICAL PLUG LOCATION
[VIEWED FROM FRONT]**

MODEL	FROM BOTTOM [H] in. (mm)	FROM LEFT SIDE [I] in. (mm)
BWB1SE	2.4 (16)	5.1 (130)
WB1E	4.6 (117)	4.9 (124)
WB2E	4.6 (117)	4.9 (124)

LEG DISTANCE FROM OUTSIDE OF BODY

MODEL	LEG HEIGHT [D] in. (mm)	FRONT [E] in. (mm)	BACK [F] in. (mm)	SIDE [G] in. (mm)
BWB1SE	0.625 (16)	0.3 (8)	1.2 (30)	0.4 (10)
WB1E	0.3 (8)	0.625 (16)	0.15 (4)	0.3 (8)
WB2E	0.3 (8)	0.625 (16)	0.15 (4)	0.3 (8)

MODEL	HEIGHT [A] CLOSED/OPEN in. (mm)	WIDTH[B] in. (mm)	DEPTH [C] in. (mm)	VOLTS	AMPS	WATTS	NEMA PLUG	APPROX. SHIP WEIGHT	APPROX. WEIGHT INSTALLED
BWB1SE	10.6/23 (269/584)	10.2 (259)	19 (483)	120 230 208/240	7.5 3.6 3.3/3.8	900 828 686/912	5-15P CEE7-7 6-15P	33 lb. (15 kg)	29 lb. (13.2 kg)
WB1E	8.6/19 (218/483)	10.2 (259)	16 (406)	120 230 208/240	7.5 3.7 3.3/3.8	900 900 686/912	5-15P CEE7-7 6-15P	24 lb. (10.9 kg)	20 lb. (9.1 kg)
WB2E	8.6/19 (218/483)	19.75 (502)	16 (406)	120 230 208/240	15 7.4 6.5/7.5	1800 1,800 1352/1,800	5-20P CEE7-7 6-15P	44 lb. (20 kg)	40 lb. (18.1 kg)



CEE7-7



5-15P



5-20P



6-15P

Due to periodic changes in designs, methods, procedures, policies and regulations, the specifications contained in this sheet are subject to change without notice. While Star Manufacturing exercises good faith efforts to provide information that is accurate, we are not responsible for errors or omissions in information provided or conclusions reached as a result of using the specifications. By using the information provided, the user assumes all risks in connection with such use.

DAILY OPERATION



CERTAIN SURFACES ARE EXTREMELY HOT DURING OPERATION AND CARE SHOULD BE TAKEN WHILE USING THIS UNIT.



DO NOT LEAVE THE UNIT IN OPERATION WITHOUT AN ATTENDANT.



DO NOT LEAVE THE UNIT OPEN WHEN NOT IN USE OR DURING IDLE PERIODS.

PREHEAT / GENERAL OPERATION

- i. When the unit has been plugged into a suitable outlet and power supply, the power switch can be flipped to turn the unit on.
- ii. With the unit closed, allow it to preheat for at least twenty [20] minutes.
- iii. Raise the upper grid using the handle and pour the desired amount of waffle batter onto the lower grid.
- iv. Lower the upper grid using the handle and set the timer to the desired setting.
- v. When the timer goes off, raise the upper grid and carefully remove the waffle.

COOKING RECOMMENDATIONS

- Keep the grids closed when not in use to maintain temperature.
- Use a soft bristle brush to lightly brush and clean cooking debris from the grids between waffles.
- Reseason grids every 3–4 waffles or after waffle baker has been idle for thirty [30] minutes or more to guard against waffles sticking and ensure proper taste. This interval may be extended by adding some oil or butter to the waffle batter.
- Never apply beeswax, paraffin or other such materials to the grids.
- Always use fresh batter that contains sufficient shortening. Add shortening as necessary, and do not store batter for extended periods.
- Never use sharp implements [knives, forks, metal tongs, etc.] to remove waffles from the grid. Use a plastic spatula or plastic tongs.

RELEASE AGENT CAUTION

- If you find it necessary to use a release agent to keep waffles from sticking, you should brush it on. Spraying may oversaturate the grids and the excess has the possibility of building up inside the baker and causing damage. If you only have a spray type commercial waffle baker release agent, try spraying it into a container and applying the contents with a pastry brush.

SETTING THE TIMER

To increase or decrease the pre-set timer duration, press and hold either the ▲ or ▼ button and while holding, press the “START/STOP” to adjust the time up or down, respective to the arrow button you are holding.

SETTING THE TEMPERATURE

If necessary, the factory pre-set temperature can be changed. To view the current temperature setting, press and hold the “TEMP” button and then press and hold the “START/STOP” button for 3 seconds. Press the either the ▲ or ▼ button to increase or decrease the temperature. Press the “START/STOP” button again to save the new setting.

CHANGING THE TEMPERATURE READOUT

In order to change between Fahrenheit and Celcius, with the unit on hold the “TEMP” button. While holding turn the power switch off and then back to on. Repeat the process to change back.

BAKING WAFFLES

THE WAFFLE BAKER MUST BE AT OPERATING TEMPERATURE AND PROPERLY SEASONED FIRST.

- i. Raise the lid, pour in waffle mix, and close the lid. [on BWB1SE models, rotate the grids 180 degrees]
- ii. Start timer by pressing the “START/STOP” button.
- iii. When the timer sounds, press the “START/STOP” button again. [on BWB1SE models, rotate the grids back 180 degrees to the original position]
- iv. Remove the waffle.
- v. Repeat these steps, remembering to reseason the grids every 3–4 waffles.

SHUTDOWN

Disconnect power to the unit with the power button at the end of each day of operation.



DO NOT IMMERSE THE UNIT IN WATER OR LET THE UNIT STAND IN WATER.



DO NOT HOSE DOWN THE UNIT OR THE TABLE/COUNTER IF THE UNIT IS ON THE TABLE/COUNTER.



DO NOT USE ABRASIVE CLEANERS.

CLEANING

SUGGESTED CLEANING SUPPLIES

- i. mild dish detergent and water
- ii. plastic scouring pad
- iii. soft-bristled fiber brush [“daily” procedure]
- iv. stiff-bristled fiber brush [“as needed” procedure]
- v. clean soft cloth and/or sponge

CLEANING PROCEDURES

PREVENTIVE MAINTENANCE FOR YOUR WAFFLE BAKER CONSISTS OF THE FOLLOWING RECOMMENDED CLEANING PROCEDURES. TO KEEP YOUR WAFFLE BAKER IN ITS BEST OPERATING CONDITION, THESE STEPS SHOULD BE PERFORMED AS RECOMMENDED.

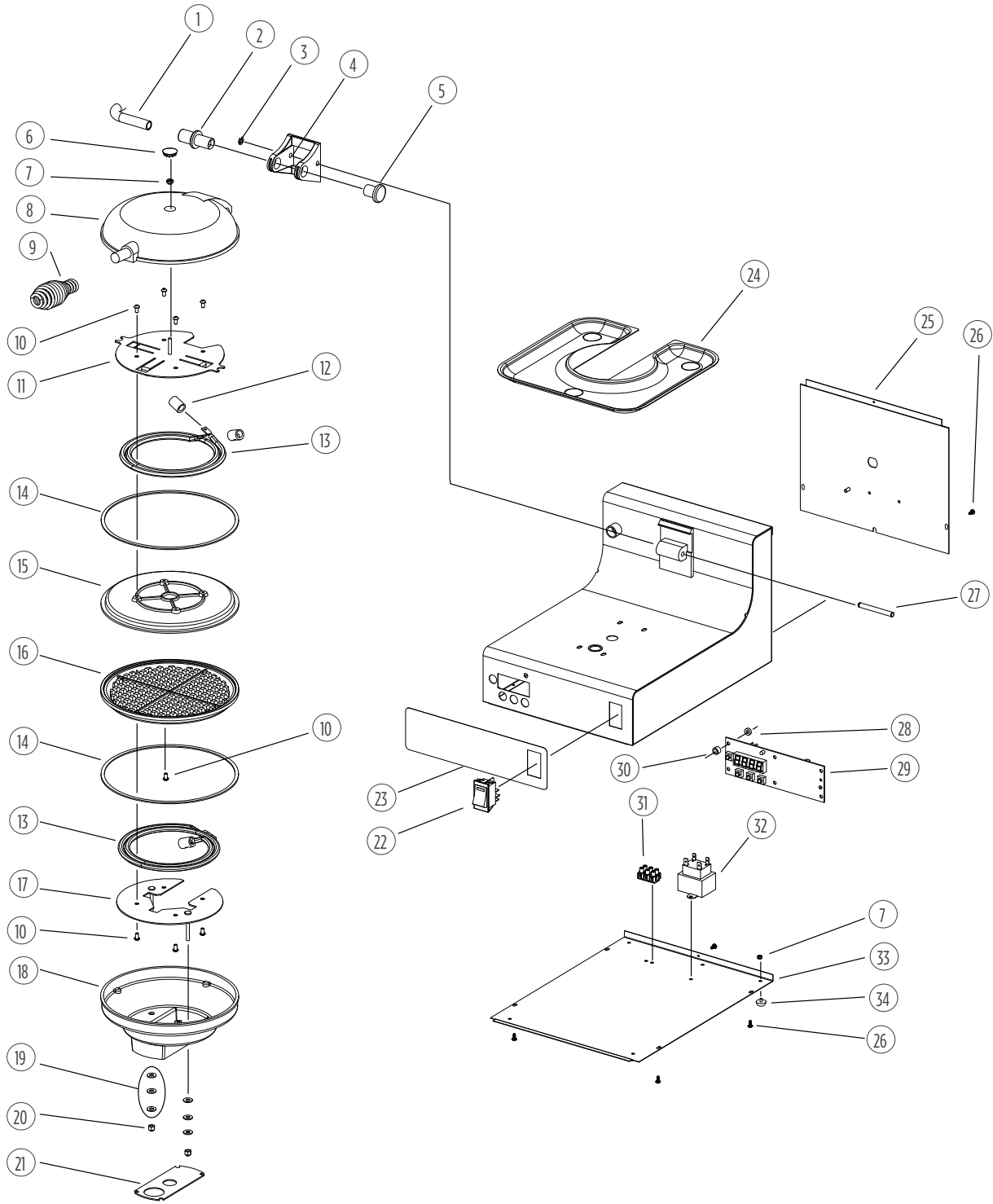
DAILY

- i. Unplug the unit and allow it to cool completely.
- ii. Use a soft-bristle brush to clean remaining cooking residue from grids.
- iii. Wipe down the outside of the unit with a soft, clean cloth dampened with mild detergent and warm water.
- iv. Wipe down with a soft, clean cloth dampened with only clean water and allow to air dry.
- v. Reseason the grids when cleaning is complete and unit is dry.

AS NEEDED TO REMOVE CARBONIZATION

- i. Unplug the unit and allow it to cool completely.
- ii. Carefully apply a commercial carbon cleaning solution to the grid surfaces using a new stiff-bristle brush. Do not spill the carbon cleaning solution on yourself or any other surfaces. Use extreme caution when handling and follow all manufacturer recommendations regarding use.
- iii. Lower the upper grid[s] and allow appliance to stand for several hours or overnight if possible, depending on the extent of the carbonization.
- iv. Thoroughly remove the carbon cleaning solution and black residue using a brush. Then use a damp cloth and wipe down the grid surfaces carefully until all the carbon cleaning solution has been removed.
- v. Wipe down the outside of the unit with a soft, clean cloth dampened with mild detergent and warm water.
- vi. Wipe down with a soft, clean cloth dampened with only clean water and allow to air dry.
- vii. Reseason the grids when cleaning is complete and unit is dry.

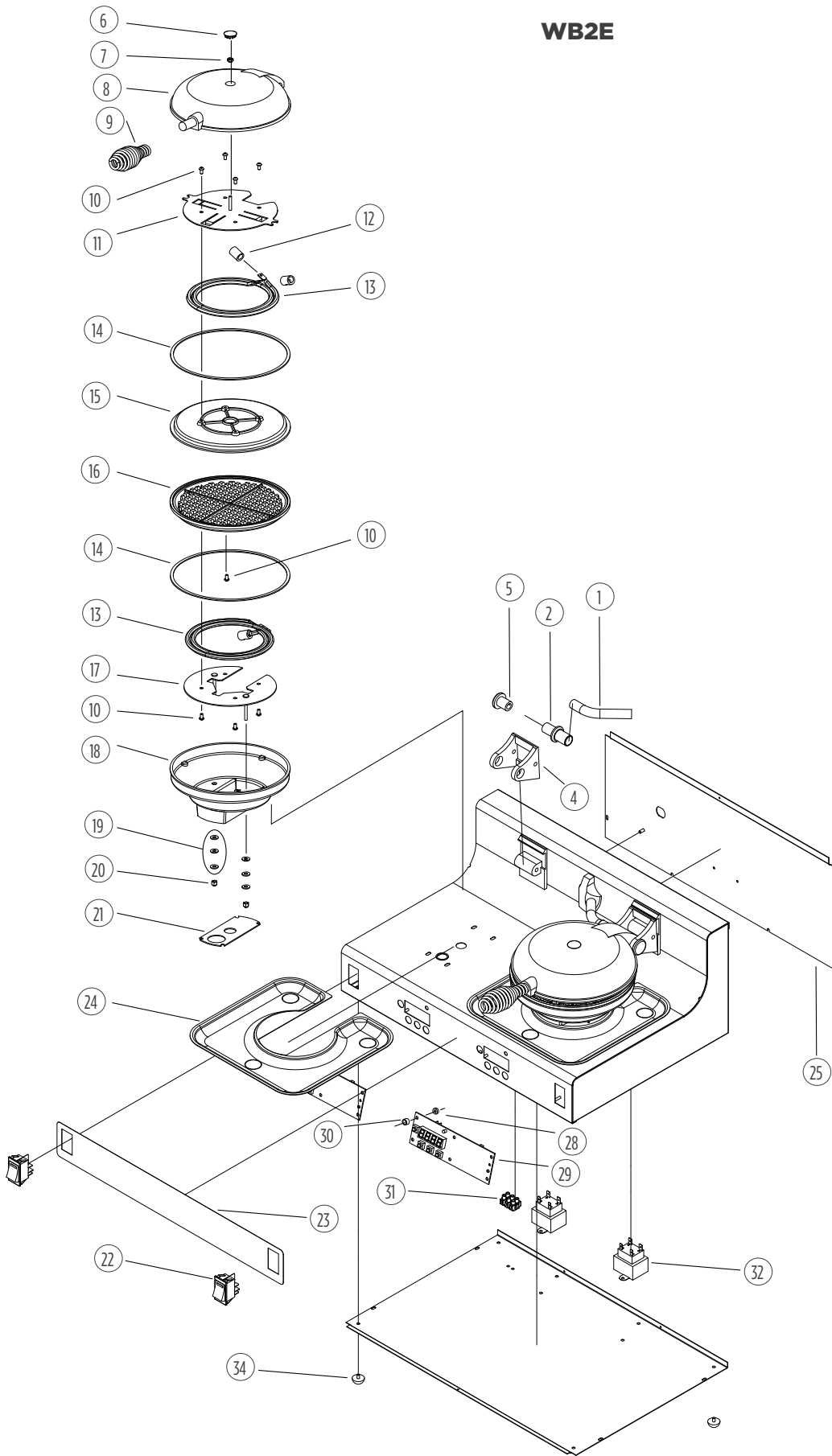
WB1E



WB1E PARTS LIST

REF NO	PART NUMBER	DESCRIPTION	QTY	PAGE NO
1	B8-35552	solid curved conduit	1	6
2	2F-30329	solid straight conduit	1	6
3	2C-30222	retaining ring	1	6
4	2F-30322	hinge	1	6
5	2V-30328	hinge pivot cap	1	6
6	2P-38628	upper grid cap	1	6
7	2C-31053	8-32 keps nut	9	6
8	2F-30327	cast top housing	1	6
9	2R-30335	handle	1	6
10	2C-31715	8-32 x 0.3125 screw	13	6
11	B8-Z16245	top plate element clamp	1	6
12	2K-307280	insulating bushing	4	6
13	2N-307811UL	element	2	6
14	2I-30337	grid gasket	2	6
15	2F-38917	top grid	1	6
16	2F-307657	bottom grid	1	6
17	B8-Z16246	bottom plate element clamp	1	6
18	2F-30326	cast bottom housing	1	6
19	2C-32242	#10 washer	6	6
20	2C-38627	8-32 acorn nut	2	6
21	2I-30338	bottom casting-to-body gasket	1	6
22	2E-35127	plastic rocker switch	1	6
23	2M-Z19093	WB1E control overlay/label	1	6
24	B8-38629	drip tray	1	6
25	B8-Z16411	rear panel	1	6
26	2C-33935	6AB x 0.3125 screw	7	6
27	2A-30333	hinge pin	1	6
28	2K-08-07-0004	round nylon spacer	6	6
29	2J-Z7497	control board and screen	1	6
30	2K-Z1971	nylon spacer	6	6
31	2E-Z5375	3-pole terminal block	1	6
32	2E-05-07-0351	transformer for 120 V model	1	6
	2E-05-07-0350	transformer for 240 V model		
33	B8-Z16410	bottom panel	1	6
34	2A-45728	rubber foot	4	6
35	2E-35539	5-15P cord set for 120 V model	1	NP
	2E-72920	CEE7-7 cord set for 230 V model		
	2E-35540	6-15P cord set for 240 V model		
36	2J-Z16743	RTD temperature probe	1	NP
37	2K-31217	90° strain relief	1	NP
38	2K-70648	small strain relief	1	NP

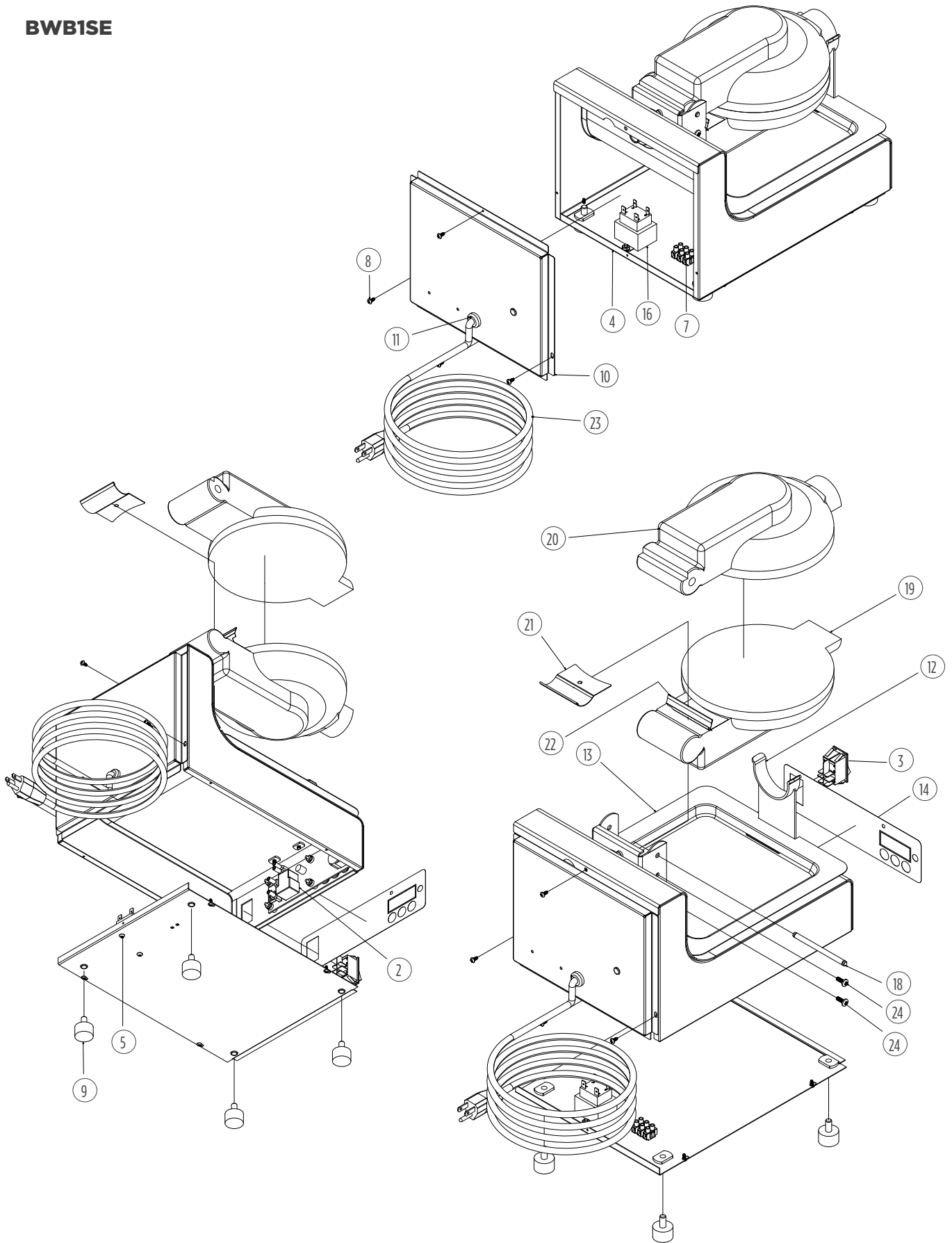
WB2E



WB2E PARTS LIST

REF NO	PART NUMBER	DESCRIPTION	QTY	PAGE NO
1	B8-35552	solid curved conduit	2	8
2	2F-30329	solid straight conduit	2	8
3	2C-30222	retaining ring	2	NP
4	2F-30322	hinge	2	8
5	2V-30328	hinge pivot cap	2	8
6	2P-38628	upper grid cap	2	8
7	2C-31053	8-32 keps nut	14	8
8	2F-30327	cast top housing	2	8
9	2R-30335	handle	2	8
10	2C-31715	8-32 x 0.3125 screw	26	8
11	B8-Z16245	top plate element clamp	2	8
12	2K-307280	insulating bushing	8	8
13	2N-307811UL	element	4	8
14	2I-30337	grid gasket	4	8
15	2F-38917	top grid	2	8
16	2F-307657	bottom grid	2	8
17	B8-Z16246	bottom plate element clamp	2	8
18	2F-30326	cast bottom housing	2	8
19	2C-32242	#10 washer	12	8
20	2C-38627	8-32 acorn nut	4	8
21	2I-30338	bottom casting-to-body gasket	2	8
22	2E-35127	plastic rocker switch	2	8
23	2M-Z19094	WB2E control overlay/label	1	8
24	B8-38629	drip tray	2	8
25	B8-Z17180	rear panel	1	8
26	2C-33935	6AB x 0.3125 screw	8	8
27	2A-30333	hinge pin	2	8
28	2K-08-07-0004	round nylon spacer	12	8
29	2J-Z7497	control board and screen	2	8
30	2K-Z1971	nylon spacer	12	8
31	2E-25375	3-pole terminal block	1	8
32	2E-05-07-0351	transformer for 120 V model	2	8
	2E-05-07-0350	transformer for 240 V model		
33	B8-Z17179	bottom panel	1	8
34	2A-45728	rubber foot	4	8
35	2E-35539	5-15P cord set for 120 V model	1	NP
	2E-72920	CEE7-7 cord set for 230 V model		
	2E-35540	6-15P cord set for 240 V model		
36	2J-Z16743	RTD temperature probe	2	NP
37	2K-31217	90° strain relief	1	NP
38	2K-70648	small strain relief	1	NP

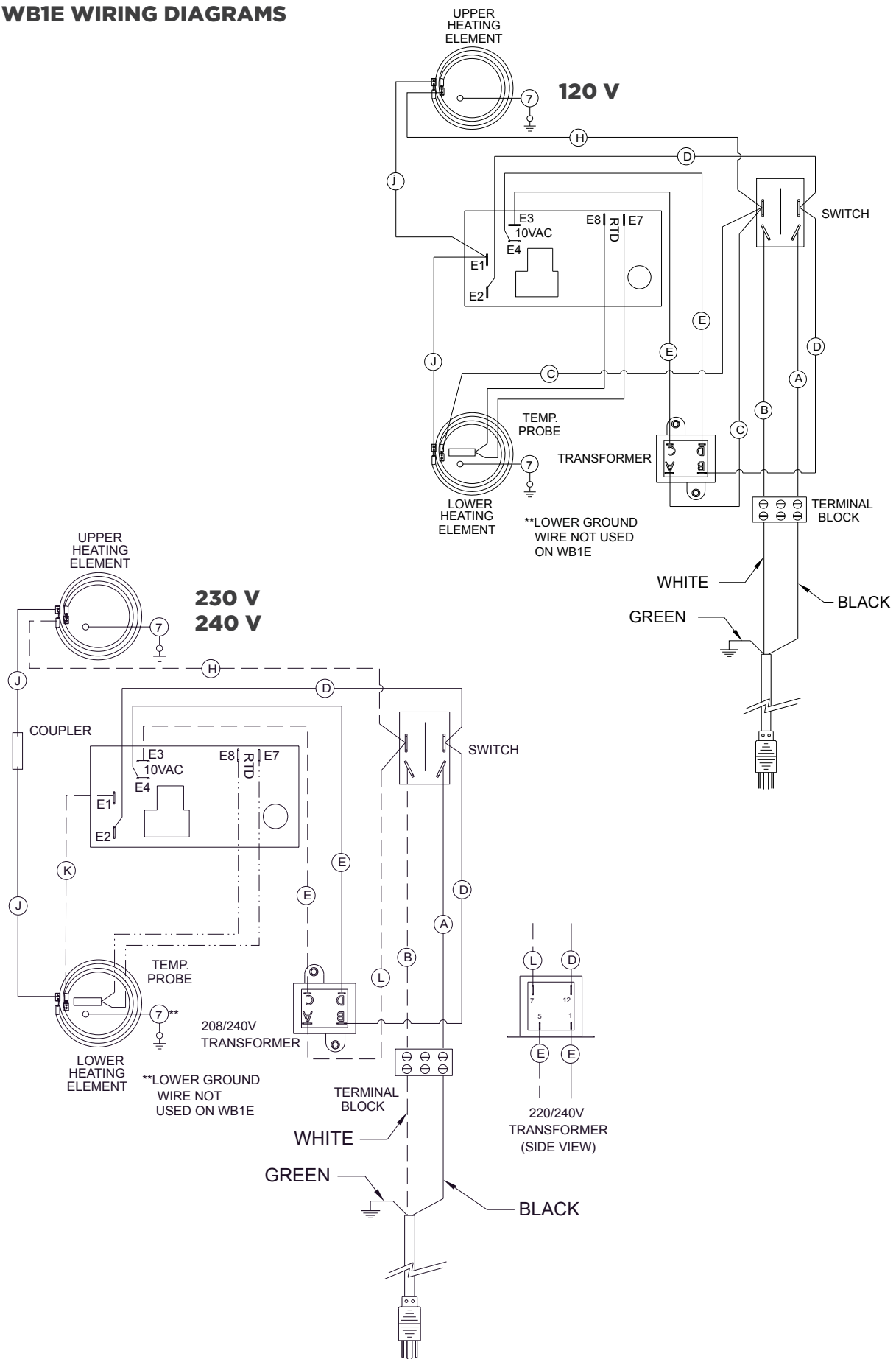
BWB1SE



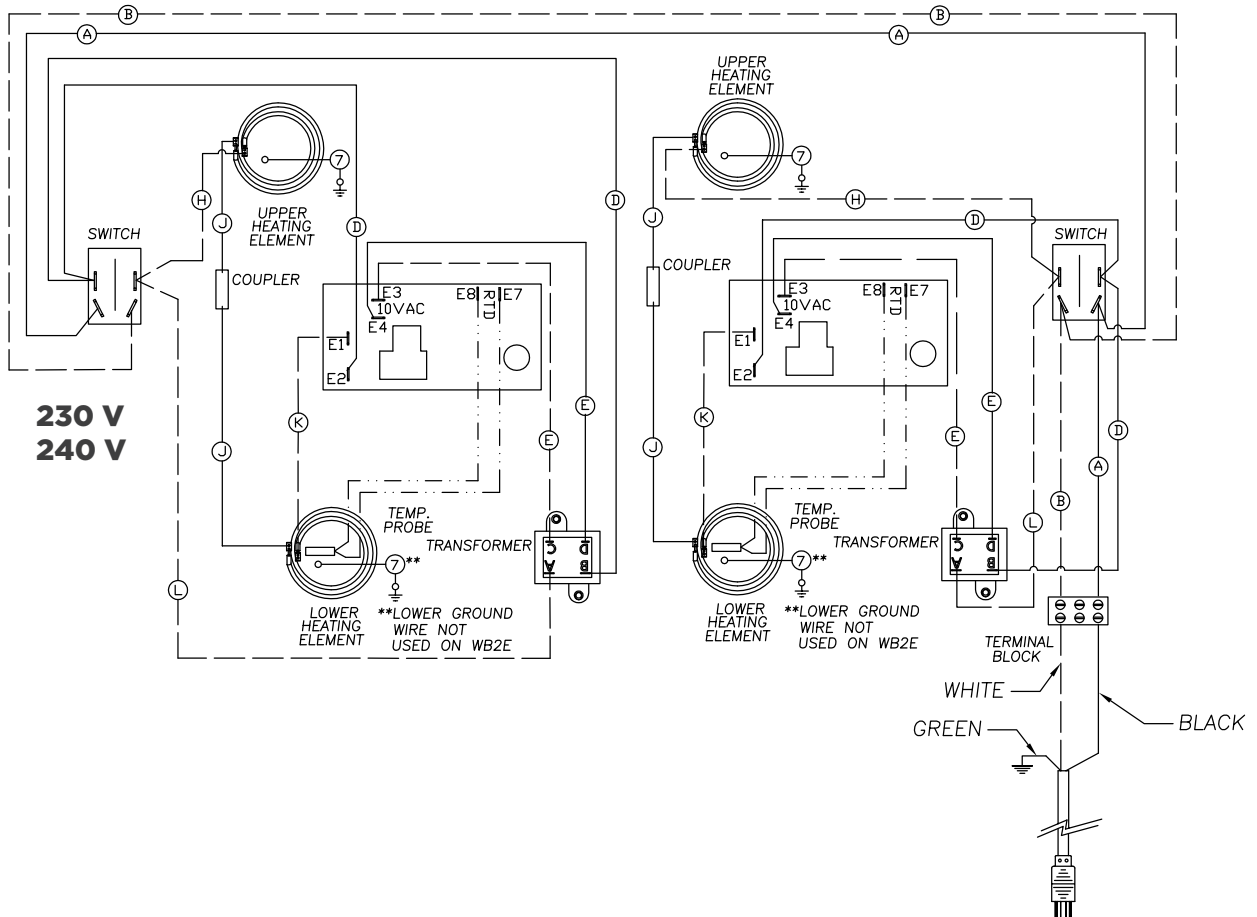
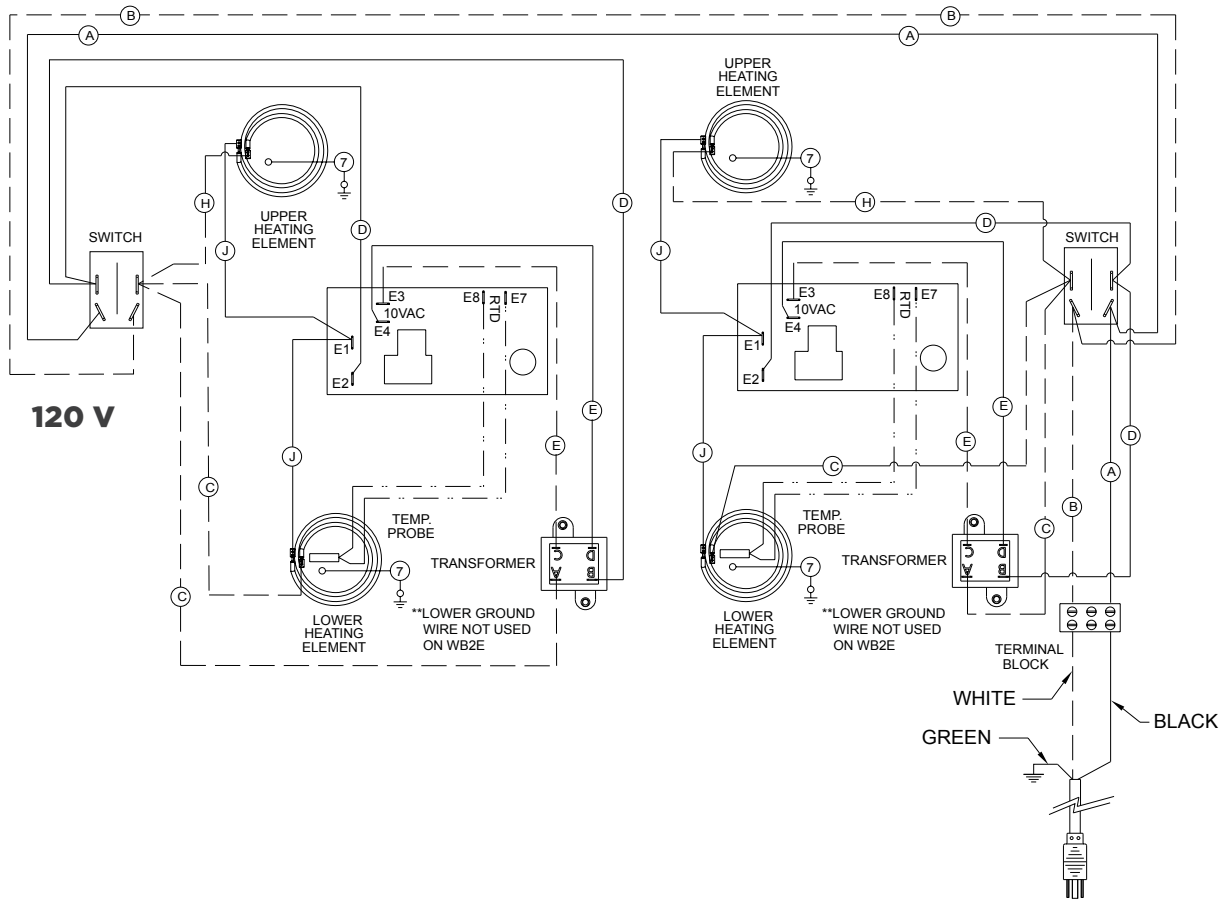
BWB1SE PARTS LIST

REF NO	PART NUMBER	DESCRIPTION	QTY	PAGE NO
1	B8-WL0620	body	1	10
2	2J-27497	control board	1	10
3	2E-35127	rocker switch	1	10
4	B8-42003	bottom panel	1	10
5	2C-31715	8-32 x 0.3125-inch screw	2	10
6	2C-31053	8-32 keps nut	2	10
7	2E-25375	terminal block	1	10
8	2C-33935	#6 x 0.3125-inch screw	8	10
9	2A-40564	rubber foot	4	10
10	B8-Z18949	rear panel	1	10
11	2K-70648	strain relief	1	10
12	B8-42028	support bracket assembly	1	10
13	B8-42555	drip tray	1	10
14	2M-Z19018	BWB1SE control overlay label	1	10
15	B8-42006	pivot housing assembly	1	10
16	2E-05-07-0351	transformer	1	10
17	2A-303523	drip guide	1	10
18	2A-42018	pivot shaft	1	10
19	2F-42007UL	lower grid assembly	1	10
20	2F-42008UL	upper grid assembly	1	10
21	B8-42023	upper plate wiring cover	1	10
22	B8-42031	lower plate wiring cover	1	10
23	2E-35539	cord set, 120 V	1	10
	2E-72920	CEE7-7 cord set for 230 V model		
	2E-35540	cord set, 240 V		
24	2C-42010	10-32 x 0.5-inch screw	4	10
25	2C-40303	10-32 x 0.375-inch screw	2	10
26	2P-42232	bearing	1	10

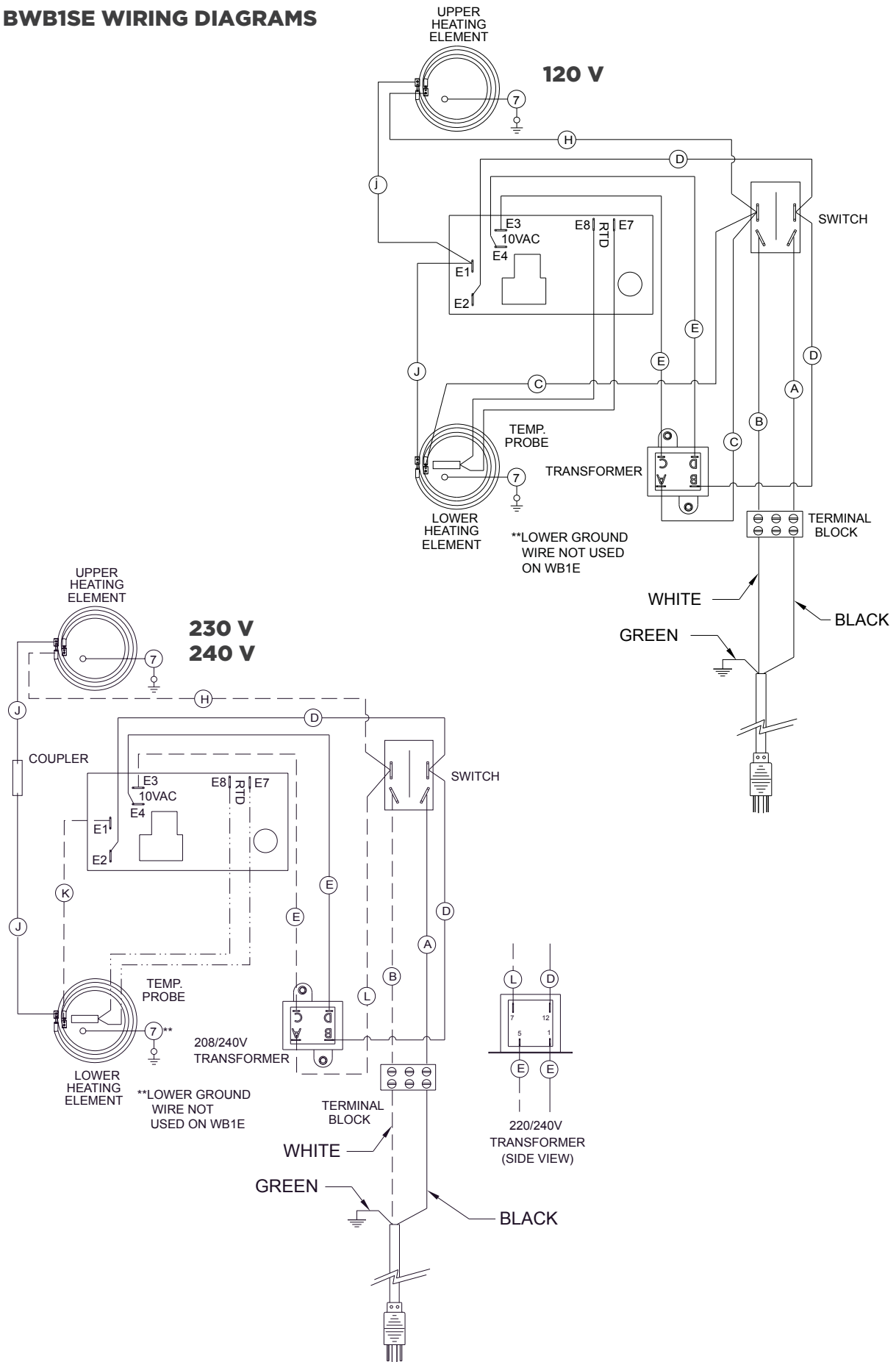
WB1E WIRING DIAGRAMS



WB2E WIRING DIAGRAMS



BWB1SE WIRING DIAGRAMS



NOTES

