# **VFETCO**<sup>°</sup> User's Guide and Operator Instructions

# FETCO HOT WATER DISPENSER SERIES HWB-5. HWB-10, HWB-15, HWB-25 LEGACY Commercial Hot Water Boilers Including IP44



FETCO HWB-5;HWB-10;HWB-15;HWB-25

LEGACY® line of Commercial Hot Water Dispensers

Stainless Steel Construction - Durable and Easy to Clean Thermally Insulated Hot Water Tank for Energy Savings and Increased Worker Safety Easy to Install, Adjust and Service

Fully Automatic Water Heater with Digital Controls for Controlled Refill and No Recovery Time

Perfect for High Volume Hot Water Dispensing:

BOH Kitchen Use Cafes and Tea Houses Hospitality / Volume Hot Beverage Production Beer & Kombucha Breweries

#### CONTACT INFORMATION

FETCO® FOOD EQUIPMENT TECHNOLOGIES COMPANY 600 ROSE ROAD LAKE ZURICH • IL • 60047-0429 • USA INTERNET: www.fetco.com ©2008-2021 FOOD EQUIPMENT TECHNOLOGIES COMPANY PATENTS:<u>https://www.fetco.com/pl,pages,patents,74.html</u> HOT WATER DISPENSER SERIES HWB-5. HWB-10, HWB-15, HWB-25

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SURETEMP

LEGACY

HOT WATER SYSTEM

## TABLE OF CONTENTS

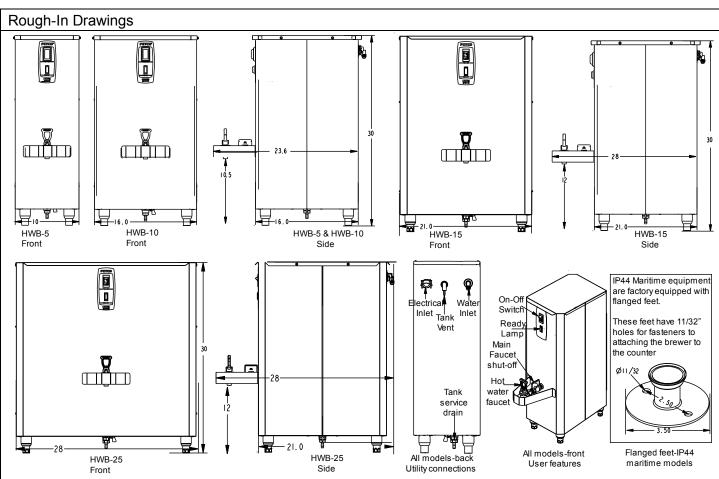
Specifications and Requirements	2
Rough-In Drawings	2
Capacities and Measurements	2
Electrical Rating Chart	3
Installation	
Installation-power connection	5
Operating Procedures	5

Programming Instructions	6
Setting bias for pure water.	7
Operator Training	
Cleaning & Maintenance	
Parts diagrams	9
Wiring diagrams	

Specifications and Requirements Water Requirements: HWB-2000 20-75 psig, (138-517kPa) 0.75gpm/(2.8 lpm) Water supplied to hot beverage equipment should be filtered Water supplied Hardness >100 TDS (5.5 grain) Water inlet fitting: 3/8 inch male flare.

## Temperature, as set by factory: 200°F (93°C) inside water tank (at sea level) Electrical: See electrical configuration chart.

**Dispense Volume:** Software controls flowrate so that water dispensed is at programmed temperature.



#### NOTES

-Model designation indicates minimum flow rate per hour, e.g. HWB-5 is five gallons per hour

-All utility connections are from back of equipment. All electrical and water utility connections per local codes.

-Tank service drain (at bottom) must not be plumbed. It is for service or to drain tank to relocate equipment

-Tank vent must never be obstructed. It is for normalization of hot water tank pressure to fill and dispense water. The hot water tank is not pressurized - it is an atmospheric hot water dispense system. If a condensate drain is desired: use heavy wall or ridgid tubing with a minimum 3/2 inch ID. Do not plumb to drain-leave a minimum 12" air gap to drain.

Capacities and Measurements								
Model	Height	Width	Depth	Water tank capacity	Empty Weight	Filled Weight	Shipping Weight	Shipping Dimensions
HWB-5	30 in	10 in	23% in	6.0 gal	58 lb	108 lb	65 lb	32X12X27 inch
пир-Э	762 mm	254 mm	599 mm	22.7 liter	26.3 kg	49.0 kg	29.5 kg	813X355X686 mm
HWB-10	30 in	16 in	23⁵⁄₃ in	12 gal	64 lb	163 lb	72 lb	32X21X25 inch
	762 mm	406 mm	599 mm	45.3 liter	29.0 kg	74.0 kg	32.7 kg	813X533X635 mm
	30 in	21 in	28 in	20.7 gal	70 lb	243 lb	105 lb	33X24X28 inch
HWB-15	762 mm	533	711 mm	78.2 liter	31.7 kg	110 kg	47.6 kg	840X610X710 mm
HWB-25	30 in	28 in	28 in	30.5 gal	119	375 lb	160 lb	33X37X32 inch
	762 mm	711 mm	711 mm	115.5 liter	53.9 kg	170 kg	72.5 kg	840X940X810 mm

#### **Electrical Rating Chart**

All HWB equipment below have terminal blocks for installation by user for corded or hardwired installation 50Hz or 60Hz Note: discontinued HWB-5 and HWB-10 models included for reference purposes due to large population of this equipment in use and in the field for service and reselling

		HW	B-5 5 Ga	allon Ho	t Water Dispenser			
Configuration	Notes	Heater	Wires †	Phase	Voltage	kW	Maximum	Gal/Hr
Code	Notes	Configuration	wires	Phase	Supplied	KVV	Amp draw	Gal/HI
H05011	discontinued	1 X 3.0 kW	3+G	1	120/208	2.3	11.3	5.6.
					120/220	2.5	12.0	6.5
					120/240	3.0	13.0	7.4
H05021* *Export only	discontinued	1X4.0	2+G	1	220-240	3.4/4.0	15.8/17.2	7.4
		HWB	-10 10 0	Gallon ⊢	lot Water Dispense	r		
Configuration	Nataa	Heater		ĺ	Voltage		Maximum	0.1/1.1.
Code	Notes	Configuration	Wires †	Phase	Supplied	kW	Amp draw	Gal/Hr
H10011	discontinued		3+G	1	120/208	4.5	22.0	11.2
				-	120/220	5.0	23.4	12.9
					120/240	6.0	25.5	14.9
H10021*								
*Export only	discontinued		2+G	1	220-240	5.0/6.0	23.4/25.5	14.9
	1		B-15 15	Gallon H	ot Water Dispenser			
Configuration Code	Notes	Heater Configuration	Wires †	Phase	Voltage Supplied	kW	Maximum Amp draw	Gal/Hr
H15011		2X3.0 kW	3+G	1	120/208	4.5	22.0	11.2
1113011		273.0 KVV	510	I	120/200	4.5 5.0	22.0	12.9
					120/240	6.0	25.5	14.9
H15021		3X3.0 kW	4+G	3	120/208	6.8	19.3	16.7
					120/220	7.6	20.3	19.4
					120/240	9.0	22.2	22.3
H15041* *Export only		3X3.0 kW	4+G	3	220-240/380-415	7.6-9.0	12.0-13.0	15.0-19.0
		НМ	B-25 25	Gallon H	lot Water Dispenser			
Configuration		Heater			Voltage		Maximum	
Code	Notes	Configuration	Wires †	Phase	Supplied	kW	Amp draw	Gal/Hr
H25011		6X3.0 kW	4+G	3	120/208	13.5	38.0	33.5
1120011		0/10.0 100	4.0	J	120/220	15.1	40.2	38.8
					120/220	18.0	43.8	44.6
1105004			4.0	<u> </u>				
H25021		6X4.0 kW	4+G	3	120/208	18.0	50.5	44.6
					120/220	20.2	53.4	51.8
					120/240	24.0	58.2	59.5
H25031* *Export only		6X3.0 kW	4+G	3	220-240/380-415	15.1-18.0	23.4-25.5	60.0
			time HWE	3-5 5 Ga	allon Hot Water Dispe	enser		
Configuration Code	Notes	Heater Configuration	Wires †	Phase	Voltage Supplied	kW	Maximum Amp draw	Gal/Hr
H05041MIP	IP44-	1 X 3.0 kW	e2+G	1	220	2.5.	12.0	6.5
	Maritime				240	3.0	13.0	7.4
		IP44 Maritim	e HWB-	10 10 0	Gallon Hot Water Di			
Configuration Code	Notes	Heater	Wires †	Phase	Voltage	kW	Maximum	Gal/Hr
	IP44-	Configuration	 	3	Supplied	<b>F</b> 0	Amp draw	10 0
H10031MIP		2X3.0 kW	e3+G	3	220	5.0	12.0	12.9
L \\//	Maritime	la ala ala de la d			240	6.0	13.0	14.9
Wires "e3+G Wires "4+G"	" denotes a th denotes a W∖	ree phase, fo /E three phas	ur wire b e, five wi	undle o ire bunc	of L1; L2; .N (neutr f L1; L2; .L3 and a lle of L1; L2; L3; N dle of L1; L2; and a	ground wire and a groun	(export only d wire (dom	) estic)

#### Installation

Keys To A Successful Installation (For Qualified Service Technicians Only)

Electrical:

All FETCO dispensers require NEUTRAL. Ground is not an acceptable substitute. Installation without neutral, or attaching a powered lead, may cause damage to the electronic components.

The power connection to L1 on the terminal block must be at least 105 volts. Less than 105 volts will cause erratic behavior. Greater than 120 volts may damage the equipment.

The power switch has a built-in circuit breaker. To reset it, turn to the "off" position, and then back to the "on" position.

The wiring diagram for the dispenser is located on the inside of the cover.

Plumbing:

This equipment is to be installed to comply with the applicable federal, state, or local plumbing codes.

The water line must be flushed thoroughly prior to connecting it to the dispenser to prevent debris from contaminating the machine. All beverage equipment should use an inline water filter.

Verify that the water line will provide at least 2 gallons per minute before connecting it to the dispenser.

General:

Utilize only qualified beverage equipment service technicians for installation. A Service Company Directory may be found on our web site, http://www.fetco.com. Or at <u>https://www.fetco.com/pl,service-technicians,service.html</u>

Do not adjust the thermostat settings unless absolutely necessary. They are set at the factory for optimum performance.

#### Installation Check List

The installation must comply with applicable federal, state, and local codes having jurisdiction at your location. Check with your local inspectors to determine what codes will apply to the installation and operation of FETCO products.

1) Verify that the actual voltage at the electrical service connection is compatible with the specifications on the dispenser's serial number plate. Make sure the electrical service includes **neutral**. Ensure at this time that the circuit breaker to the dispenser and the power switch on the dispenser are in the off position

2) The temperature and the water tank fill level are pre-set at the factory. There is no need to turn off the heaters during the installation process. The heaters are disabled by the liquid level control board until water is sensed. The heating process will start automatically when the tank has filled with water

- 3) Place the dispenser on a suitable counter or stand (Note filled weights from chart on page 2)
- 4) When the dispenser is in position for use, level the dispenser front to back as well as side to side by adjusting the legs.
- 5) Remove the cover

6) Water connection

Water inlet is a 3/8 inch male flare fitting

The dispenser can be connected to a cold or hot water line. Cold water is preferred for best flavor, but hot water will allow for faster recovery times. Use of an in-line water filter is strongly recommended

Install a water shut off valve near the dispenser to facilitate service. If an in-line water filter is used, it should be installed after the water shut off valve and in a position to facilitate filter replacement.

Flush the water supply line and filter **before** connecting it to the dispenser.

Verify that the water line will provide at least 0.75 gallons per minute and that the water pressure is between 20 and 75 psig.

Use a wrench on the factory fitting when connecting the incoming water line. This will reduce stress on the internal connections and reduce the possibility of leaks developing after the installation has been completed.

#### 7) .Vent tube connection:

Vent tube connection is a 3% inch hose barb.

Tank vent must never be obstructed. It is to normalize the hot water tank pressure to fill and dispense water. The hot water tank is not pressurized - this is an atmospheric hot water dispense system. If a condensate drain is desired: use heavy wall or rigid tubing with a minimum  $\frac{3}{6}$  inch ID. Do not plumb to drain-leave a minimum 12" air gap to drain.

Installation-power connection

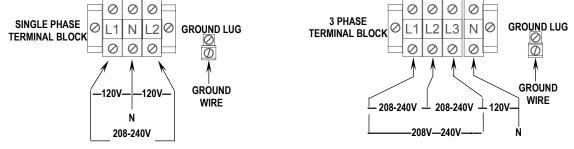
8) Power connection:

A fused disconnect switch or circuit breaker on the incoming power line must be conveniently located near the dispenser, and its location and markings known to the operators.

All dispensers require neutral. Damage to the dispenser may result if neutral is not present.

The body of the dispenser must be grounded to a suitable building ground. A ground lug is provided in the dispenser next to the power terminal block. Use only 10 gauge copper wire for grounding.

Electrical connections must be secured in-place within the unit to meet national and local standards



#### **Domestic Electrical Configurations**

9) Turn on the incoming water supply line and inspect both inside and outside of the dispenser for leaks in all fittings and tubes.

10) Turn on the incoming power line and the dispenser's on/off switch.

Within 6 seconds, the hot water tank will begin filling until the water is sensed by the water probe at the top of the tank.

The heaters will be disabled until the water probe at the top of the tank senses water.

11) Review the programming instructions and make any necessary adjustments.

12) Re-attach the cover after one final inspection for leaks

#### **Operating Procedures**

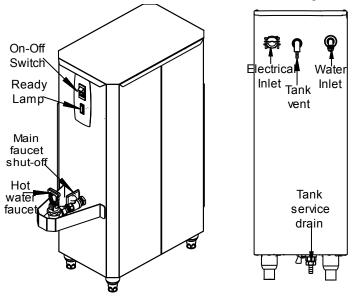
Turn the dispenser power switch to the "on" position. The power switch will illuminate to indicate that the dispenser has power and is operating.

When the ready light illuminates, the dispenser is fully up to temperature and ready to dispense hot water through the faucet. The amount of time required to gain full operating temperature will vary depending on the electrical configuration that was ordered, and the temperature of the incoming water.

Safety Precautions:

Do not hang containers or any other object from the faucet or faucet guard.

Do not disassemble the faucet without closing the main faucet shut-off valve located behind the faucet.



NOTE: Never plumb to the tank service drain. This drain must be clear for service work or to empty the hot water  $\leftarrow$  tank during moving or relocating the equipment

Programmin	g Instructions								Т	EMPERA	TURE
•	-								(	CONVER	
			tank tem	nperature	in degrees Celsius					°C	°F
when in n	ormal operating	, mode.								82	180
Temperature may be set in either Celsius or Fahrenheit.										83 83	<u>181</u> 182
remperat	ure may be set	in either Ce	elsius or i	ranrenne	IL.					84	183
Service no	ote: Whenever	the digital te	emperatu	ire probe i	is replaced, it will be					84	184
	/ to reprogram a									85	185
-		-								85	186
	ove the top cov									86	187
The cor	ntrol board is loo	cated on the	e left side	e near the			_(° <b>C</b> π			87	188
2) Turn	the power swite	ch ON.			SET			<u></u>		87	189
,	•		far 7 aaa	anda (aa	o visible >>	<b>1</b> 7	(°F 10	<u>r</u>		88	190
	s and hold the S						<mark>と</mark> ] (%FV]	n)		88	191
					idicator lamp will be lit.					89	192
To adju	st, press and re	lease SET	quickly to	o advance	one degree at a time.	Rang	ge: 82	2-98 °C.		89	193
4) Press	s and hold SET	for 3 secor	nds.							90	194
				and °F in	dicator lamp will be lit.					90	195
					one degree at a time.	Rano	ie 180	)-208 °F		91	19
	•				•	rtang		-200 1	· —	92	19
•	e last 2 digits of			•	ayed.					92 93	19 19
Example	e: 205°F is disp	olayed as 96	5°C as sh	iown						93	20
NOTE!	Correct for altitu	ide boilina	point sup	pression	to prevent boiling! See	e char	t belo	W		93	20
					er tank boils for any ler					94	20
		•	-		•	-				95	20
			ids. The i	fill valve %	6 will be displayed and	the %	δFV			95	204
	r lamp will be lit								►	96	205
To adju	st, press and re	lease SET	quickly to	o advance	one percent at a time.					97	20
Refer to	the chart below	w for the pro	oper setti	ng for you	Ir model and voltage.					97	20
Range:	15% – 100%.				_					98	208
	unit will automation at the second	tically returi	n to norm	al operati	ng mode after 30 seco	nds w	/ithou	t	>	Factory s 96°C/20	
A) Locate B) Detern C) Locate	e table for perce model and hea nain if three pha outout voltage corresponding %	ater configu ase or singl (one of thr	ration e phase ee showr	ו)							
Model Heater Configuration Voltage Phase %FV Setting Strong Setting						er tempe	rature.				
		Voltage	· ·	-		[ft]	[m]	Suggested Setting[°F]		Suggested Setting[°C]	Boil point
		120/208	single	15		0	0	205	212.0	96	100
HWB-5 (-1)	1 X 3000 watt	120/220	single	15							
		120/240	single	17		500	152	205	211.0	96	99
		120/208	single	25		1000	305	200	210.1	93	98
HWB-10 (-1)	2 X 3000 watt	120/220	single	28	1	2000	610	200	208.1	93	97
	_,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		Single	20	4	2500	762	200	207.2	93	97

Go to fetco.com for the latest versions of all information

120/240

120/208

120/220

120/240

120/208

120/220

120/240

120/208

120/220

120/240

120/208

120/220

120/240

HWB-15 (-1) 2 X 3000 watt

HWB-15 (-2) 3 X 3000 watt

HWB-25 (-1) 6 X 3000 watt

HWB-25 (-2) 6 X 4000 watt

single

single

single

single

three

three

three

three

three

three

three

three

three

33

25

28

33

37

42

50

74

83

99

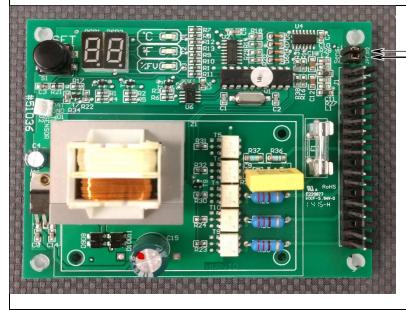
99

100

100

in tank water temperature.									
[ft]	[m]	Suggested Setting[°F]	Boiling point[°F]	Suggested Setting[°C]	Boiling point [°C]				
0	0	205	212.0	96	100.0				
500	152	205	211.0	96	99.5				
1000	305	200	210.1	93	98.9				
2000	610	200	208.1	93	97.8				
2500	762	200	207.2	93	97.3				
3000	914	200	206.2	93	96.8				
3500	1067	197	205.3	92	96.3				
4000	1219	195	204.3	91	95.7				
4500	1372	194	203.4	90	95.2				
5000	1524	194	202.4	90	94.7				
5500	1676	193	201.5	89	94.2				
6000	1829	192	200.6	89	93.6				
6500	1981	191	199.6	88	93.1				
7000	2134	190	198.7	87	92.6				
7500	2286	188	197.8	86	92.1				
8000	2438	187	196.9	86	91.6				
8500	2591	185	196.0	85	91.1				

Setting bias for pure water.



The HWB can be set to detect high purity water by moving the two bias jumpers [JP1&JP2] to "HI"

High purity water is usually below 100TDS. The setting LOW is "normal" for most water change to "HIGH" for water treated by reverse osmosis "R.O."

NOTE: Change jumper position only with unit turned off and then removed from power.

Some very pure water, below 75-50 TDS may not detect well even when at the HI position

# **Operator Training**

Review the operating procedures with whoever will be using this equipment

## Pay particular attention to the following areas:

- 1. Show the location and operation of the water shut off valve as well as the circuit breaker for the equipment.
- 2. Steam from the tank will form condensation in the vent tube. This condensation will drip into and then out of the tank vent. Place an appropriate container under the vent.
- 3. We recommend leaving the power to the hot water dispenser on overnight. The water tank is well insulated and very little electricity is used to keep the tank hot. Leaving the equipment in the "ON" position will also avoid delays at the beginning of shifts for the hot water dispenser to reach operating temperature.

# **Cleaning & Maintenance**

## Every Day:

- 1. Use only a soft cloth and hot suds on the outside to avoid scratches. Never use abrasives that will scratch surface.
- 2. Never use spray cleaners, solvent, solvent based cleaner or petroleum based polish anywhere on dispensers

## Warning

- 1. Turn off power before any cleaning procedure, including wiping the exterior for appearance reasons.
- 2. Dry the exterior, especially the face panel, before turning on power.
- 3. Do not apply any type of spray cleaner on the face panel of this equipment.
- 4. Never use solvent or solvent-based cleaner or petroleum based polish anywhere on this equipment.
- 5. Dry the face of the touch pad before turning on power
- 6. Do not electrically energize this equipment or attempt operation without all covers in place and all screws fastened.
- 7. Unplug machine before disassembly or servicing.

#### **Safety Notes**

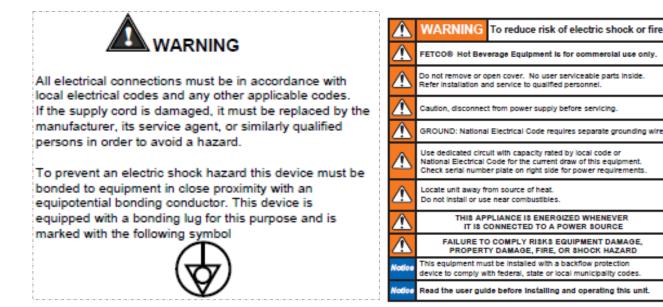
- 1. Professional installation is required. This appliance is manufactured for commercial use only
- 2. Operational requirements and maintenance for commercial cooking appliances differ from household appliances.
- 3. Operators must be trained for this equipment and must understand the use, maintenance and hazards.
- 4. Access to the service area is restricted to persons having safety/hygiene knowledge and practical experience of the equipment. This appliance must be installed in locations where it can be overseen by adult trained personnel.
- 5. Do not attempt to move hot beverage equipment once it is filled. Drain equipment before moving.
- 6. FETCO commercial hot water dispensers prepare large amounts of very hot water

#### Keep these instructions for training and future reference.

Installation safety and hygiene directions-for International and CE equipment

- 1. Access to the service area is restricted to persons having safety/hygiene knowledge and practical experience of the equipment. This appliance must be installed in locations where it can be overseen by trained personnel.
- 2. For proper operation, this appliance must be installed indoors where the temperature is between 10°C/50°F to 35°C/95°F. Drain and remove all liquid from equipment and lines if exposed to freezing temperatures.
- 3. All commercial cooking equipment, including this unit, is not intended for use by children or persons with reduced physical, sensory, or mental capabilities. Ensure proper supervision of children and keep them away from the unit.
- Children should be supervised to ensure that they do not play hot beverage equipment.
- 5. This unit must be installed and serviced by gualified personnel only.
- 6. Installation must conform to all local electrical and plumbing codes. Installation by unqualified personnel will void the unit warranty and may lead to electric shock or burn, as well as damage to unit and/or its surroundings.
- 7. Review the dimensions for the unit and verify that it will fit properly in the space intended for it. Verify that the counter or table will support the total weight of the hot water dispenser when filled (See: Technical Data).
- 8. Place the hot water dispenser on the counter or stand. When the equipment is in position, level it front to back as well as side-to-side by adjusting the legs.
- 9. This equipment requires a sturdy supported surface for operation. Do not move equipment when filled.
- 10. Do not tilt appliance more than 10° to insure safe operation.
- 11. Non IP-44 equipment is for protected indoor use only. Do not steam clean or apply excessive water on unit.
- 12. Non IP-44 equipment is not "jet-proof" construction. Do not pressure wash or use jet spray to clean this unit.
- 13. All FETCO equipment is not waterproof-do not submerge or saturate with water.

#### Equipment exposed to flood and contaminated must not be used due to electrical and food safety. Do not operate if unit has been submerged or saturated with water.



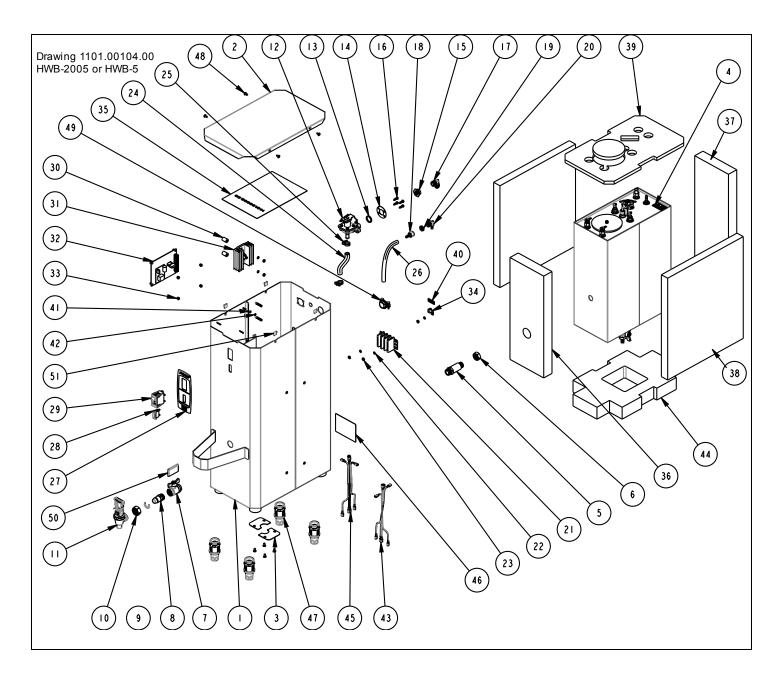
Labels and warnings for hot beverage equipment

Label for BACK PANEL of equipment (1046.00035.00)

To reduce risk of electric shock or fire.

# Parts diagrams

Com	nplete H	HWB-2005 IP44; a	nd HWB-5 HOT WATER TANK ASSY, Part number 1104.00027.00
#	Qty	PART NO	DESCRIPTION
_1	1	1114.00038.00	TANK WELDMENT, HWB-2005
2	1	1053.00051.00	THERMOSTAT, SINGLE SHOT, 240V/25A
3	2	1083.00009.00	WASHER, #6 SCREW , INTL TOOTH LOCKWASHER
4	2	1084.00010.00	NUT, HEX, #6-32, UNDERSIZED, ZINC PLATED
5	5	1083.00006.00	WASHER, .875" OD X 0.562" ID FLAT
6	3	1031.00006.00	FITTING, COMP., 3/8 TUBE OD X 1/4 MPT
7	1	1025.00001.00	FITTING, COMPRESSION MALE CONNECTOR
8	5	1031.00007.00	LOCKNUT, 1/4 STRAIGHT PIPE THREAD
9	1	1107.00006.00	HEATER ASSY, IMMERSION, 3000W/240VAC, HWB-2000
9	1	1107.00007.00	HEATER ASSY, IMMERSION, 4000W/240VAC, HWB-2000
10	1	1031.00054.00	FITTING, BARB, 1/4" HOSE ID X 1/4" MALE PIPE
11	1	1024.00007.00	O-RING, DASH #344, TANK COVER
12	1	1102.00007.00	
13	1	1032.00003.00	TUBE, 3/8"OD X 13" LG, COLD WATER INLET, HWB-2000
14	1	1031.00014.00	FITTING, EXTENSION 1/2"FPT x 1/2" MPT x 0.45"LG
15	1	1031.00015.00	FITTING, EXTENSION 1/2"FPT x 1/2" MPT x 2.00"LG
16	1	1034.00001.00	VALVE, BALL, 1/2" FPT X 1/2" FPT
17	1	1031.00013.00	FITTING, HOSE BARB 3/8" x 1/2" MPT
18	1	1102.00025.00	PROBE ASSEMBLY, DIGITAL TEMPERATURE, 12.0" LG
19	2	1021.00002.00	HOUSING, WATER LEVEL PROBE
20 21	1	1112.00030.00	PROBE WELDMENT, WATER LEVEL, 11.25" LONG PROBE WELDMENT, WATER LEVEL, 2.50" LONG
21	1	1112.00029.00 1044.00004.00	LABEL, DANGER, HIGH VOLTAGE
_ 22		1044.00004.00	



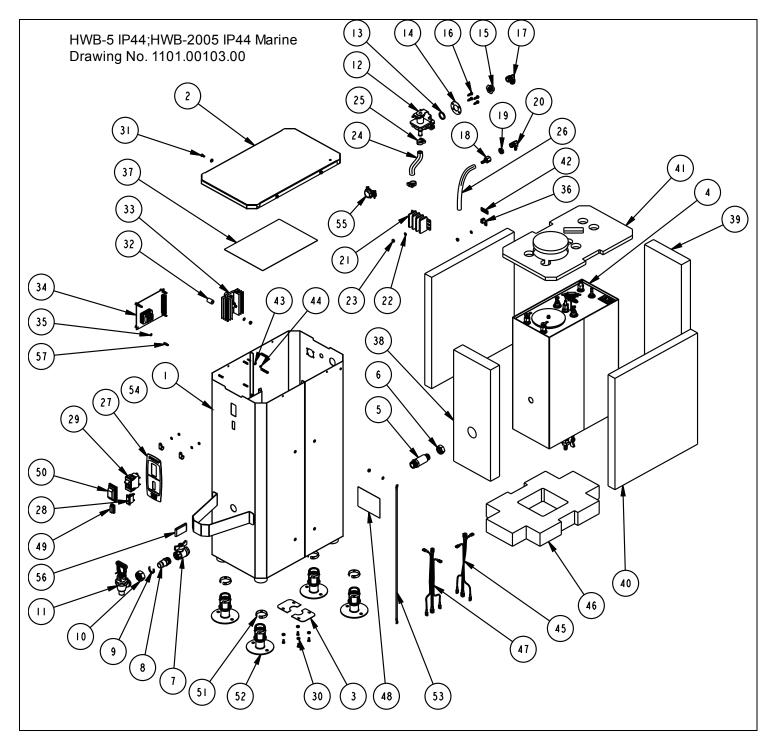
The proper controls voltage for domestic (Americas) equipment are 120Vac.

Domestic equipment is marked 120/208-240VAC to signify that the first voltage, the 120 Volt is 120 volts for the controls and inlet valve. This configuration also requires a NEUTRAL wire in the wiring bundle. The 208-240VAC of the 120/220-240 rating is for the heaters.

Brewers and parts marked as EXPORT are only for use in non-Americas equipment.

EXPORT equipment and IP-44 Maritime equipment have 240 volt control boards and inlet valves. The 240 volt control boards and inlet valves are only for use in equipment marked EXPORT or IP-44 Maritime. This equipment does not require a NEUTRAL in the wiring bundle and is not used for domestic (Americas) equipment

Ref	Otv	Part Number	Description Drawing 1101.00104.00 HWB-2005 or HWB-5
1	Qty 1	1111.00020.00	Description Drawing 1101.00104.00 HWB-2005 or HWB-5 BODY, WELDMENT, HWB-2005, STANDARD
2	1	1001.00070.00	COVER, TOP, HWB-2005
3	2	1003.00030.00	COVER, DRAIN OPENING, HWB'S
4	1	1104.00027.00	TANK ASSEMBLY, HWB-2005, 1 x 3kW/240VAC (see detailed drawing on page 9)
5	1	1013.00019.00	SHANK REAR HWB-2000
6	1	1013.00020.00	LOCKNUT, SHANK, 3/4-20
7			
	1	1034.00001.00	VALVE, BALL, 1/2" HWB-2000
8	1	1013.00017.00	SHANK FRONT HWB-2000
9	1	1071.00012.00	
10	1	1012.00002.00	
11	1	1071.00011.00	FAUCET, COMPLETE W/RED HANDLE, HWB-2000
12	1	1057.00006.00	VALVE, S-53, 120VAC 50/60HZ, 0.75GPM ±15%
12	1	1057.00044.00	FILL VALVE, S53, .75 GPM, 240VAC EXP EXPORT ONLY
13	1	1024.00020.00	GASKET, S-53 FILL VALVE
14	1	1003.00019.00	BRACKET, S-53
15	1	1031.00004.00	FITTING, S-53 FILL VALVE INLET
16	4	1082.00019.00	SCREW, S-53 FILL VALVE
17	1	1031.00005.00	FITTING, 90° MALE ELBOW, 3/8 OD TUBE X 3/8 NPT
18	1	1031.00017.00	FITTING, BARB 1/4" HOSE ID x 1/4" FPT
19	1	1031.00007.00	LOCKNUT, 1/4 STRAIGHT PIPE THREAD
20	1	1031.00016.00	FITTING, 90° ELBOW, 1/4" HOSE ID X 1/4" MPT
21	1	1052.00010.00	TERMINAL BLOCK, 3 POLE, 30 AMP, 10-22 AWG
22	5	1083.00011.00	WASHER, #8 SCREW SIZE, INTERNAL TOOTH LOCK
23	5	1084.00006.00	NUT, 8-32 18-8 HEX MACHINE SCREW
24	1	1025.00013.00	TUBE, 5/8"OD X 3/8"ID X 4.5"LG,COLD WATER, HWB-2000
25	2	1086.00001.00	CLAMP, HOSE, 15.0-17.2 DIA RANGE
26	1	1025.00014.00	TUBE, 1/2"OD X 1/4"ID X 7.0"LG VENT. HWB-2000
27	1	1045.00013.00	OVERLAY, HWB-2005
28	1	1058.00004.00	LAMP, "READY" INDICATOR, GREEN, 110 VAC
29	1	1052.00003.00	BREAKER, CIRCUIT, 240VAC, ROCKER SWITCH, 6AMP
30	2	1029.00007.00.	SPACER, #8 SCREW, 1/2" OD X 3/4" LG, RND UNTHR
31	1	1102.00026.00	SINK, HEAT, ASSEMBLY, HWB-2000
32	1	1108.00013.00	CTRL BOARD AND SOFTWARE ASSY, HWB-2000, 120VAC
32	1	1108.00012.00	CTRL BOARD AND SOFTWARE ASSY, HWB-2000, 230VAC EXPORT ONLY
33	4	1029.00006.00	NUT, FINGER, #4-40 NYLON
34	1	1065.00002.00	CONNECTOR, COPPER LUG
35	1	1401.00008.00	WIRING DIAGRAM, HWB-5, 120/208-240VAC, N, L1, L2 + GND
36	1	1022.00044.00	INSULATION, TANK FRONT, HWB-2005
37	1	1022.00045.00	INSULATION, TANK BACK, HWB-2005
38	2	1022.00043.00	INSULATION, TANK, SIDE, HWB-2005/2010
39	1	1022.00041.00	INSULATION, TANK TOP, HWB-2005
40	1	1044.00003.00	LABEL GROUND
41	1	1083.00009.00	WASHER, #6 SCREW, INTL TOOTH LOCKWASHER
42	1	1084.00010.00	NUT, HEX, #6-32, UNDERSIZED, ZINC PLATED
43	1	1402.00022.00	HARNESS, LOW AMP, HWB-5, IP44 HALOGEN FREE
44	1	1022.00042.00	INSULATION, TANK BOTTOM, HWB-2005
45	1	1402.00023.00	HARNESS, HIGH AMP, HWB-5, IP44, HALOGEN FREE
46	1	1042.00006.00	LABEL, 4" X 3" SERIAL NUMBER
40	4	1102.00027.00	INSERT, LEG, ASSEMBLY, HWB-2000
48	8	1082.00023.00	SCREW, #8-32 X 3/8 TRUSS HD PHIL., MACHINE
40	1	1086.00008.00	CONNECTOR, CABLE CLAMP, 3/4"
49 50	1	1024.00022.00	GRIP, FLAT, RED (.25 x 2.00 x 1.13)
50	4	1024.00022.00	NUT, CLIP ON (J-NUT), #8-32, 20 GA., BLACK-PHOSPHATE FINISH
51	4	1004.00020.00	THOT, CLIF ON (UTNOT), #0-32, 20 GA., BLACK-FROSFRATE FINISR



The proper controls voltage for domestic (Americas) equipment are 120Vac.

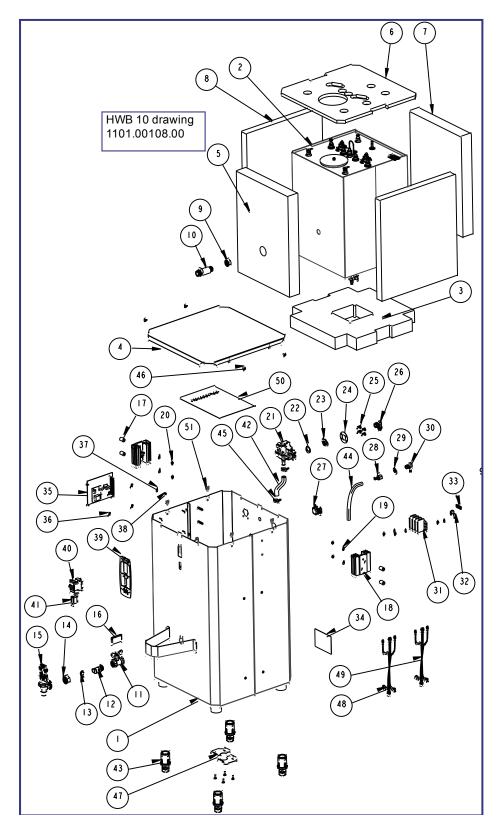
Domestic equipment is marked 120/208-240VAC to signify that the first voltage, the 120 Volt is 120 volts for the controls and inlet valve. This configuration also requires a NEUTRAL wire in the wiring bundle. The 208-240VAC of the 120/220-240 rating is for the heaters.

Brewers and parts marked as EXPORT are only for use in non-Americas equipment.

EXPORT equipment and IP-44 Maritime equipment have 240 volt control boards and inlet valves. The 240 volt control boards and inlet valves are only for use in equipment marked EXPORT or IP-44 Maritime. This equipment does not require a NEUTRAL in the wiring bundle and is not used for domestic (Americas) equipment

<u>Page 12</u>

		HWB-20	05 or HWB-5 HWB-5 IP44 EXPORT ONLY, Not for Americas
Ref	Qty	Part Number	Description Drawing 1101.00103.00 HWB-2005 EXPORT HWB-5 IP44 Marine
1	1	1111.00019.00	BODY, WELDMENT, HWB-2005, IP44
2	1	1112.00124.00	WELDMENT, TOP COVER, HWB-2005, IP44
3	2	1003.00030.00	COVER, DRAIN OPENING, HWB'S
4	1	1104.00027.00	TANK ASSEMBLY, HWB-2005, 1 x 3kW/240VAC (see detailed drawing on page 9)
5	1	1013.00019.00	SHANK REAR HWB-2000
6	1	1013.00020.00	LOCKNUT, SHANK, 3/4-20
7	1	1034.00001.00	VALVE, BALL, 1/2" FPT X 1/2" FPT
8	1	1013.00017.00	SHANK FRONT HWB-2000
9	1	1071.00012.00	C-RING, FOR TOMLINSON FAUCET
10	1	1012.00002.00	NUT, FAUCET UNION TPD/HWB
11	1	1071.00011.00	FAUCET, COMPLETE W/RED HANDLE, HWB-2000
12	1	1057.00044.00	FILL VALVE, S53, .75 GPM, 240VAC EXPORT ONLY
13	1	1024.00020.00	GASKET, S-53 FILL VALVE
14	1	1003.00019.00	BRACKET, S-53
15	1	1031.00004.00	FITTING, S-53 FILL VALVE INLET
16	4	1082.00019.00	SCREW, S-53 FILL VALVE
17	4 1	1031.00005.00	FITTING, 90° MALE ELBOW, 3/8 OD TUBE X 3/8 NPT
17	1	1031.00017.00	FITTING, 90 MALE ELBOW, 3/8 OD TOBE X 3/8 NPT FITTING, BARB 1/4" HOSE ID x 1/4" FPT
10	1	1031.00007.00	LOCKNUT, 1/4 STRAIGHT PIPE THREAD
20	1	1031.00016.00	FITTING, 90° ELBOW, 1/4" HOSE ID X 1/4" MPT
20	1	1052.00010.00	TERMINAL BLOCK, 3 POLE, 30 AMP, 10-22 AWG
21	6	1083.00011.00	
22	6	1083.00011.00	WASHER, #8 SCREW SIZE, INTERNAL TOOTH LOCK NUT, 8-32 18-8 HEX MACHINE SCREW
	<u> </u>		
24 25	2	1025.00013.00	TUBE, 5/8"OD X 3/8"ID X 4.5"LG
	<u> </u>	1086.00001.00	CLAMP, HOSE, .590"673" DIA RANGE TUBE, 1/2"OD X 1/4"ID X 7.0"LG VENT. HWB-2000
26		1025.00014.00	
27	1	1045.00013.00	OVERLAY, HWB-2005
28	1	1058.00018.00	LAMP "READY" INDICATOR GREEN, 230VAC
29	1	1052.00003.00	BREAKER, CIRCUIT, 240VAC, ROCKER SWITCH, 6AMP
30	8	1083.00010.00	WASHER, #10 SCREW W/NEOPRENE-BONDED SEAL
31	8	1082.00063.00	SCREW, # 8-32 x 3/8", HEX HD, MS, 18-8 SS
32	2	1029.00007.00	SPACER, #8 SCREW, 1/2" OD X 3/4" LG, RND UNTHR.
33	1	1102.00026.00	SINK, HEAT, ASSEMBLY, HWB-2000
34 35	1	1108.00012.00	CTRL BOARD AND SOFTWARE ASSY, HWB-2000, 230VAC EXPORT ONLY
	4	1083.00029.00	LOCKWASHER, #4 SCREW SIZE, INTERNAL TOOTH
36	1	1065.00002.00	CONNECTOR, COPPER LUG
37	1	1401.00010.00	WIRING DIAGRAM, HWB-5, UNIVERSAL, L1, L2, + GND
38	1	1022.00044.00	INSULATION, TANK FRONT, HWB-2005
39	1	1022.00045.00	INSULATION, TANK BACK, HWB-2005
40	2	1022.00043.00	INSULATION, TANK, SIDE, HWB-2005/2010
41	1	1022.00041.00	INSULATION, TANK TOP, HWB-2005
42	1	1044.00003.00	
43	3	1083.00009.00	WASHER, #6 SCREW, INTL TOOTH LOCKWASHER
44	3	1084.00010.00	NUT, HEX, #6-32, UNDERSIZED, ZINC PLATED
45	1	1402.00022.00	HARNESS, LOW AMP, HWB-5, IP44 HALOGEN FREE
46	1	1022.00042.00	INSULATION, TANK BOTTOM, HWB-2005
47	1	1402.00023.00	HARNESS, HIGH AMP, HWB-5, IP44, HALOGEN FREE
48	1	1042.00006.00	LABEL, 4" X 3" SERIAL NUMBER
49	1	1052.00012.00	
50	1	1052.00011.00	PROTECTIVE COVER, POWER SWITCH IP44
51	4	1073.00004.00	POSI-GRIP LOCKING RING
52	4	1073.00005.00)	INSERT, LEG, W/RING, (FLANGED
53	1	1402.00024.00	GROUND WIRE, HALOGEN FREE
54	2	1086.00024.00	CABLE CLAMP, 0.375" DIA, NYLON
55	1	1086.00008.00	CONNECTOR, CLAMP, NON-METALLIC CABLE, 3/4"
56	1	1024.00022.00	GRIP, FLAT, RED (.25 x 2.00 x 1.13)
57	4	1084.00023.00	STANDOFF, MALE/FEMALE, ALUM., THREADED HEX #4-40



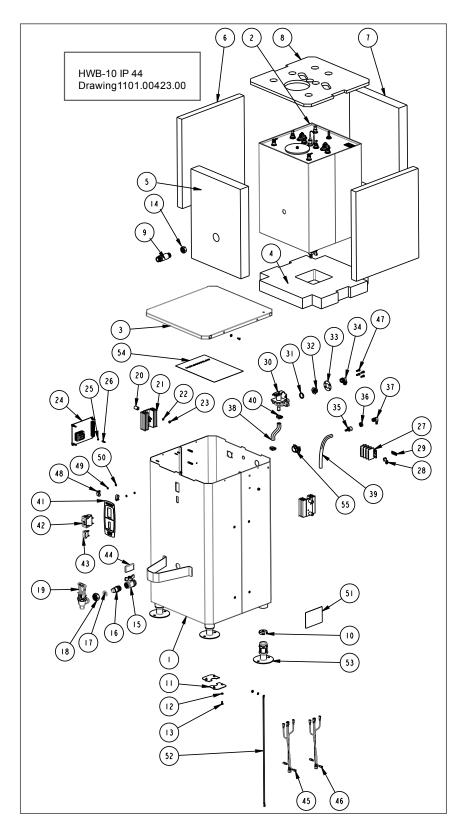
The proper controls voltage for domestic (Americas) equipment are 120Vac. Domestic equipment is marked 120/208-240VAC to signify that the first voltage, the 120 Volt is 120 volts for the controls and inlet valve. This configuration also requires a NEUTRAL wire in the wiring bundle. The 208-240VAC of the 120/220-240 rating is for the heaters.

Brewers and parts marked as EXPORT are only for use in non-Americas equipment.

EXPORT equipment and IP-44 Maritime equipment have 240 volt control boards and inlet valves. The 240 volt control boards and inlet valves are only for use in equipment marked EXPORT or IP-44 Maritime. This equipment does not require a NEUTRAL in the wiring bundle and is not used for domestic (Americas) equipment

<u>Page 14</u>

#	Qty	PART NO	DESCRIPTION Drawing Number 1101.00108.00 HWB-10
1	1	1111.00024.00	WELDMENT, HWB-2010
2	1	1104.00029.00	ASSEMBLY, TANK, HWB-2010, 2 x 3kW/240VAC (see drawing on page 18)
3	1	1022.00050.00	INSULATION, TANK BOTTOM, HWB-2010
4	1	1001.00074.00	COVER, TOP, HWB-2010
5	1	1022.00049.00	INSULATION, TANK FRONT, HWB-2010
6	1	1022.00047.00	INSULATION, TANK, TOP, HWB-2010
7	1	1022.00048.00	INSULATION, TANK BACK, HWB-2010
8	2	1022.00043.00	INSULATION, TANK, SIDE, HWB-2005/2010
9	1	1013.00020.00	LOCKNUT, SHANK, 3/4-20
10	1	1013.00019.00	SHANK REAR HWB-2000
11	1	1034.00001.00	VALVE, BALL, 1/2" HWB-2000
12	1	1013.00017.00	SHANK FRONT HWB-2000
13	1	1071.00012.00	C-RING, FOR TOMLINSON FAUCET
14	1	1012.00002.00	NUT, FAUCET UNION TPD/HWB
15	1	1071.00011.00	FAUCET, COMPLETE W/RED HANDLE, HWB-2000
16	1	1024.00022.00	GRIP, FLAT, RED (.25 x 2.00 x 1.13)
17	4	1029.00007.00.	SPACER, #8 SCREW, 1/2" OD X 3/4" LG, RND UNTHR
18	2	1102.00026.00	SINK, HEAT, ASSEMBLY, HWB-2000
19	7	1083.00011.00	WASHER, #8 SCREW SIZE, INTERNAL TOOTH LOCK
20	7	1084.00006.00	NUT, 8-32 18-8 HEX MACHINE SCREW
21	1	1057.00006.00	VALVE, S-53, 120VAC 50/60HZ, 0.75GPM ±15%
21	1	1057.00044.00	FILL VALVE, S53, .75 GPM, 240VAC EXPORT ONLY
22	1	1024.00020.00	GASKET, S-53 FILL VALVE
23	1	1031.00004.00	FITTING, S-53 FILL VALVE INLET
24	1	1003.00019.00	BRACKET, S-53
25	4	1082.00019.00	SCREW, S-53 FILL VALVE
26	1	1031.00005.00	FITTING, 90° MALE ELBOW, 3/8 OD TUBE X 3/8 NPT
27	1	1086.00008.00	CONNECTOR, CABLE CLAMP, 3/4"
28	1	1031.00017.00	FITTING, BARB 1/4" HOSE ID x 1/4" FPT
29	1	1031.00007.00	LOCKNUT, 1/4 STRAIGHT PIPE THREAD
30	1	1031.00016.00	FITTING, 90° ELBOW, 1/4" HOSE ID X 1/4" MPT
31	1	1052.00010.00	TERMINAL BLOCK, 3 POLE, 30 AMP, 10-22 AWG
32	1	1065.00002.00	CONNECTOR, COPPER LUG
33	1	1044.00003.00	LABEL GROUND
34	1	1042.00006.00	LABEL, 4" X 3" SERIAL NUMBER
35	1	1108.00013.00	CTRL BOARD AND SOFTWARE ASSY, HWB-2000, 120VAC
35	1	1108.00012.00	CTRL BOARD AND SOFTWARE ASSY, HWB-2000, 230VAC EXPORT ONLY
36	4	1029.00006.00	NUT, FINGER, #4-40 NYLON
37	1	1083.00009.00	WASHER, #6 SCREW , INTL TOOTH LOCKWASHER
38	1	1084.00010.00	NUT, HEX, #6-32, UNDERSIZED, ZINC PLATED
39	1	1045.00014.00	OVERLAY, HWB-2010
40	1	1052.00003.00	BREAKER, CIRCUIT, 240VAC, ROCKER SWITCH, 6AMP
41	1	1058.00019.00	LAMP "READY", INDICATOR GREEN, 240V
42	1	1025.00013.00	TUBE, 5/8"OD X 3/8"ID X 4.5"LG,COLD WATER, HWB-2000
43	4	1102.00027.00	INSERT, LEG, ASSEMBLY, HWB-2000
44	1	1025.00014.00	TUBE, 1/2"OD X 1/4"ID X 7.0"LG VENT. HWB-2000
45	2	1086.00001.00	CLAMP, HOSE, 15.0-17.2 DIA RANGE
46	8	1082.00023.00	SCREW, #8-32 X 3/8 TRUSS HD PHIL., MACHINE
47	2	1003.00030.00	COVER, DRAIN OPENING, HWB'S
48	1	1402.00025.00	HARNESS, HIGH AMP, HWB-2010, IP44, HALOGEN FREE
49	1	1402.00026.00	HARNESS, LOW AMP, HWB-2010, IP44 HALOGEN FREE
50	1	1401.00012.00	WIRING, HWB-10, 120/208-240V, N,L1,L2+GND
51	4	1084.00027.00	NUT, CLIP ON (J-NUT), #8-32, 18-16 GA., BPF



The proper controls voltage for domestic (Americas) equipment are 120Vac. Domestic equipment is marked 120/208-240VAC to signify that the first voltage, the 120 Volt is 120 volts for the controls and inlet valve. This configuration also requires a NEUTRAL wire in the wiring bundle. The 208-240VAC of the 120/220-240 rating is for the heaters.

Brewers and parts marked as EXPORT are only for use in non-Americas equipment.

EXPORT equipment and IP-44 Maritime equipment have 240 volt control boards and inlet valves. The 240 volt control boards and inlet valves are only for use in equipment marked EXPORT or IP-44 Maritime. This equipment does not require a NEUTRAL in the wiring bundle and is not used for domestic (Americas) equipment

		HWB-201	0 or HWB-10 HWB-10 IP44 EXPORT ONLY, Not for Americas
#	Qty	PART NO	DESCRIPTION Drawing Number 1101.00423.00 HWB-10 IP44-Export
1	1	1111.00023.00	WELDMENT, HWB-2010, IP44
2	1	1104.00029.00	ASSEMBLY, TANK, HWB-2010, 2 x 3kW/240VAC (see detailed drawing on page 18)
3	1	1112.00395.00	COVER TOP, HWB-2010, WELDMENT, MARITIME
4	1	1022.00050.00	INSULATION, TANK BOTTOM, HWB-2010
5	1	1022.00049.00	INSULATION, TANK FRONT, HWB-2010
6	2	1022.00043.00	INSULATION, TANK, SIDE, HWB-2005/2010
7	1	1022.00048.00	INSULATION, TANK BACK, HWB-2010
8	1	1022.00047.00	INSULATION, TANK, TOP, HWB-2010
9	1	1013.00019.00	SHANK REAR HWB-2000
10	4	1073.00004.00	POSI-GRIP LOCKING RING
11	2	1003.00030.00	COVER, DRAIN OPENING, HWB'S
12	8	1083.00010.00	WASHER, #10 SCREW W/NEOPRENE-BONDED SEA L
13	8	1082.00063.00	SCREW, # 8-32 x 3/8", HEX HD, MS, 18-8 SS
14	1	1013.00020.00	LOCKNUT, SHANK, 3/4-20
15	1	1034.00001.00	VALVE, BALL, 1/2" HWB-2000
16	1	1013.00017.00	SHANK FRONT HWB-2000
17	1	1071.00012.00	C-RING, FOR TOMLINSON FAUCET
17	1	1012.00002.00	NUT, FAUCET UNION TPD/HWB
19	1	1071.00011.00	FAUCET, COMPLETE W/RED HANDLE, HWB-2000
20	4	1029.00007.00	SPACER, #8 SCREW, 1/2" OD X 3/4" LG, RND UNTHR.
20	4	11029.00007.00	SPACER, #6 SCREW, 1/2 OD X 3/4 LG, RND ON THR.
22	9	1083.00011.00	WASHER, #8 SCREW SIZE, INTERNAL TOOTH LOCK
23	9	1084.00006.00	
24	1	1108.00012.00	CTRL BOARD AND SOFTWARE ASSY, HWB-2000, 230VAC EXPORT ONLY
25	4	1083.00029.00	LOCKWASHER, #4 SCREW SIZE, INTERNAL TOOTH
26	4	1084.00023.00	STANDOFF, MALE-FEMALE, ALUMINUM, THREADED HEX 4-40
27	1	1052.00010.00	TERMINAL BLOCK, 3 POLE, 30 AMP, 10-22 AWG
28	1	1065.00002.00	CONNECTOR, COPPER LUG
29	1	1044.00003.00	LABEL GROUND
30	1	1057.00044.00	FILL VALVE, S53, .75 GPM, 240VAC EXP
31	1	1024.00020.00	GASKET, S-53 FILL VALVE
32	1	1031.00004.00	FITTING, S-53 FILL VALVE INLET
33	1	1003.00019.00	BRACKET, S-53
34	1	1031.00005.00	FITTING, 90° MALE ELBOW, 3/8 OD TUBE X 3/8 NPT
35			FITTING, BARB 1/4" HOSE ID x 1/4" FPT
36	1	1031.00007.00	LOCKNUT, 1/4 STRAIGHT PIPE THREAD
37	1	1031.00016.00	FITTING, 90° ELBOW, 1/4" HOSE ID X 1/4" MPT
38	1	1025.00013.00	TUBE, 5/8"OD X 3/8"ID X 4.5"LG,COLD WATER, HWB-2000
39	1	1025.00014.00	TUBE, 1/2"OD X 1/4"ID X 7.0"LG VENT. HWB-2000
40	2	1086.00001.00	CLAMP, HOSE, 15.0-17.2 DIA RANGE
41	1	1045.00014.00	OVERLAY, HWB-2010
42	1	1052.00003.00	BREAKER, CIRCUIT, 240VAC, ROCKER SWITCH, 6AMP
43	1	1058.00018.00	LAMP "READY" INDICATOR GREEN, 230VAC
44	1	1024.00022.00	GRIP, FLAT, RED (.25 x 2.00 x 1.13)
45	1	1402.00026.00	HARNESS, LOW AMP, HWB-2010, IP44 HALOGEN FREE
46	1	1402.00025.00	HARNESS, HIGH AMP, HWB-2010, IP44, HALOGEN FREE
47	4	1082.00019.00	SCREW, S-53 FILL VALVE
48	2	1086.00024.00	CABLE CLAMP, 0.375" DIA, NYLON
49	2	1083.00009.00	WASHER, #6 SCREW , INTL TOOTH LOCKWASHER
50	2	1084.00010.00	NUT, HEX, #6-32, UNDERSIZED, ZINC PLATED
51	1	1042.00006.00	LABEL, 4" X 3" SERIAL NUMBER
52	1	1402.00024.00	GROUND WIRE, HALOGEN FREE
53	4	1073.00005.00	INSERT, LEG, W/RING, (FLANGED)
54	1	1401.00093.00	WIRING DIAGRAM, HWB-10, 220-240/VAC L1, L2, GND
55	1	1086.00008.00	CONNECTOR, CABLE CLAMP, 3/4"

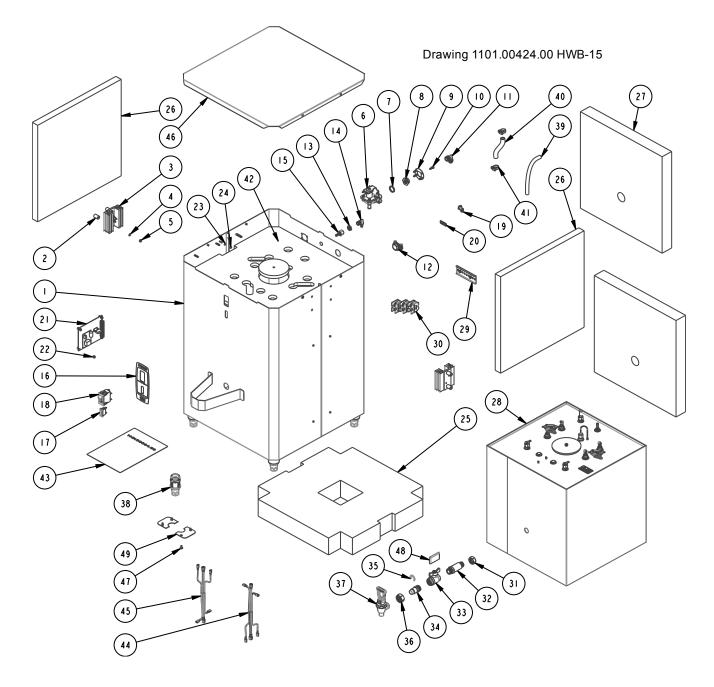
i) i) i) i) i) i) i) i) i) i)										
НОТ	WAT		ter Tank 2010, 2 x 3kW/240VAC DRAWING NO. 1104.00029.00							
#	Qty	PART NO	DESCRIPTION Drawing Number 1104.00029.00 HWB-10 IP44-All types							
1	1	1114.00044.00	WELDMENT, TANK HWB-2010							
2	2	1053.00051.00	THERMOSTAT, SINGLE SHOT, 240V/25A							
3	4	1083.00009.00	WASHER, #6 SCREW, INTL TOOTH LOCKWASHER							
4	4	1084.00010.00	NUT, HEX, #6-32, UNDERSIZED, ZINC PLATED							
5	5	1083.00006.00	WASHER, .875" OD X 0.562" ID FLAT							
6	3	1031.00006.00	FITTING, COMP., 3/8 TUBE OD X 1/4 MPT							
7	1	1025.00001.00	FITTING, COMPRESSION MALE CONNECTOR							
8	1		FITTING, BARB, 1/4" HOSE ID X 1/4" MALE PIPE							
9	1	1031.00007.00	LOCKNUT, 1/4 STRAIGHT PIPE THREAD							
10 10	2 2	1107.00006.00 1107.00007.00	HEATER ASSY, IMMERSION, 3000W/240VAC, HWB-2000 HEATER ASSY, IMMERSION, 4000W/240VAC, HWB-2000							
11	 1	1031.00014.00	FITTING, EXTENSION 1/2"FPT x 1/2" MPT x 0.45"LG							
12	1	1024.00007.00	O-RING, DASH #344, TANK COVER							
12	1	1102.00007.00	TANK COVER ASSEMBLY							
14	1	1032.00003.00	TUBE, 3/8"OD X 13" LG, COLD WATER INLET, HWB-2000							
15	1	1031.00015.00	FITTING, EXTENSION 1/2"FPT x 1/2" MPT x 2.00"LG							
16	1	1034.00001.00	VALVE, BALL, 1/2" FPT X 1/2" FPT							
17	1	1031.00013.00	FITTING, HOSE BARB 3/8" x 1/2" MPT							
18	2	1021.00002.00	HOUSING, WATER LEVEL PROBE							
19	1	1112.00029.00	PROBE WELDMENT, WATER LEVEL, 2.50" LONG							
20	1	1112.00030.00	PROBE WELDMENT, WATER LEVEL, 11.25" LONG							
21	1	1102.00025.00	PROBE ASSEMBLY, DIGITAL TEMPERATURE, 12.0" LG							
22	1	1044.00004.00	LABEL, DANGER, HIGH VOLTAGE							

<u>Page 18</u>

HWB-15 Hot Water Tank Drawing 1104.00121.00 (8) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1											
HO	T WAT	ER TANK, HWB-2	2015, 3 x 3kW/240VAC DRAWING NO. 1104.00121.00								
#	Qty	PART NO	DESCRIPTION								
1	1	1114.00015.00	TANK WELDMENT, HWB-2015								
2	3	1107.00006.00	HEATER ASSY, IMMERSION, 3000W/240VAC, HWB-2000								
2	3	1107.00007.00	HEATER ASSY, IMMERSION, 4000W/240VAC, HWB-2000								
3	2 4	1053.00051.00	THERMOSTAT, SINGLE SHOT, 240V/25A								
	-	1083.00009.00	WASHER, #6 SCREW, INTL TOOTH LOCKWASHER								
5	4 7		NUT, HEX, #6-32, UNDERSIZED, ZINC PLATED WASHER, .875" OD X 0.562" ID FLAT								
6 7	3		FITTING, COMP., 3/8 TUBE OD X 1/4 MPT								
8	6		LOCKNUT, 1/4 STRAIGHT PIPE THREAD								
8 9	2	1021.00002.00									
10	1	1112.00029.00	PROBE WELDMENT, WATER LEVEL, 2.50" LONG								
11	1	1112.00030.00									
12	1	1032.00003.00	TUBE, 3/8"OD X 13" LG, COLD WATER INLET, HWB-2000								
13	1	1025.00001.00									
14	1	1023.00003.00	,								
15	1	1102.00025.00									
16	1	1031.00054.00	FITTING, BARB, 1/4" HOSE ID X 1/4" MALE PIPE								
17	1	1024.00007.00	O-RING, DASH #344, TANK COVER								
18	1	1102.00007.00									
19	1	1031.00015.00									
20	1	1031.00014.00	,								
21	1	1034.00001.00									
22	1	1031.00013.00	FITTING, HOSE BARB 3/8" x 1/2" MPT								
23	2	1031.00036.00									
24	1		LABEL, DANGER, HIGH VOLTAGE								

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<u>Page 19</u>

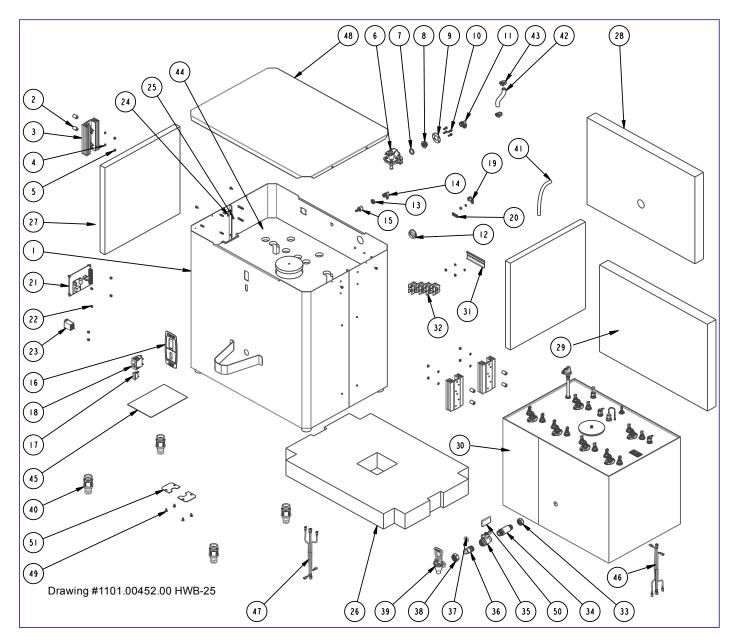


The proper controls voltage for domestic (Americas) equipment are 120Vac. Domestic equipment is marked 120/208-240VAC to signify that the first voltage, the 120 Volt is 120 volts for the controls and inlet valve. This configuration also requires a NEUTRAL wire in the wiring bundle. The 208-240VAC of the 120/220-240 rating is for the heaters.

Brewers and parts marked as EXPORT are only for use in non-Americas equipment.

EXPORT equipment and IP-44 Maritime equipment have 240 volt control boards and inlet valves. The 240 volt control boards and inlet valves are only for use in equipment marked EXPORT or IP-44 Maritime. This equipment does not require a NEUTRAL in the wiring bundle and is not used for domestic (Americas) equipment

		HV	VB-2015 or HWB-15 Domestic - for Americas and EXPORT												
#	Qty	PART NO	DESCRIPTION Drawing Number 1101.00424.00 HWB-15												
1	1	1111.00008.00	BODY, WELDMENT, HWB-2015												
2	4	1029.00007.00	SPACER, #8 SCREW, 1/2" OD X 3/4" LG, RND UNTHR.												
3	2	1102.00026.00	SINK, HEAT, ASSEMBLY, HWB-2000												
4	7	1083.00011.00	WASHER, #8 SCREW SIZE, INTERNAL TOOTH LOCK												
5	7	1084.00006.00	NUT, 8-32 18-8 HEX MACHINE SCREW												
6	1	1057.00006.00	VALVE, S-53, 120VAC 50/60HZ, 0.75GPM ±15%												
6	1	1057.00044.00	FILL VALVE, S53, .75 GPM, 240VAC EXPORT ONLY												
7	1	1024.00020.00	GASKET, S-53 FILL VALVE												
8	1	1031.00004.00	FITTING, S-53 FILL VALVE INLET												
9	1	1003.00019.00	BRACKET, S-53												
10	4	1082.00019.00	SCREW, S-53 FILL VALVE												
11	1	1031.00005.00	FITTING, 90° MALE ELBOW, 3/8 OD TUBE X 3/8 NPT												
12	1	1086.00008.00	CONNECTOR, CLAMP, NON-METALLIC CABLE, 3/4"												
13	1	1031.00007.00	LOCKNUT, 1/4 STRAIGHT PIPE THREAD												
14	1	1031.00016.00	FITTING, 90° ELBOW, 1/4" HOSE ID X 1/4" MPT												
15	1	1031.00017.00	FITTING, BARB 1/4" HOSE ID x 1/4" FPT												
16	1	1045.00005.00	OVERLAY, HWB-2015												
17	1	1058.00004.00	LAMP, "READY" INDICATOR, GREEN, 110 VAC												
18	1	1052.00003.00	BREAKER, CIRCUIT, 240VAC, ROCKER SWITCH, 6AMP												
19	1	1065.00002.00	CONNECTOR, COPPER LUG												
20	1	1044.00003.00	LABEL GROUND												
21	1	1108.00013.00	CTRL BOARD AND SOFTWARE ASSY, HWB-2000, 120VAC												
24	1	1108.00012.00	CTRL BOARD AND SOFTWARE ASSY, HWB-2000, 230VAC EXPORT ONLY												
22	4	1029.00006.00	NUT, FINGER KNURLED, #4-40												
23	1	1083.00009.00	WASHER, #6 SCREW , INTL TOOTH LOCKWASHER												
24	1	1084.00010.00	NUT, HEX, #6-32, UNDERSIZED, ZINC PLATED												
25	1	1022.00010.00	INSULATION, TANK BOTTOM, HWB-2015												
26	2	1022.00014.00	INSULATION, TANK SIDE, HWB-2015/2025												
27	2	1022.00013.00	INSULATION, TANK FRONT, HWB-2015												
28	1	1104.00121.00	TANK ASSEMBLY, HWB-2015, 2 X 3kW/240VAC (see detailed drawing on page 19)												
28	1	1104.00012.00	TANK ASSEMBLY, HWB-2015, 3 X 3kW/240VAC (see detailed drawing on page 19)												
29	1	1052.00005.00	TERMINAL BLOCK TRACK												
30	3	1052.00004.00	TERMINAL BLOCK												
31	1	1013.00020.00	LOCKNUT, SHANK, 3/4-20												
32	1	1013.00019.00	SHANK REAR HWB-2000												
33	1	1034.00001.00	VALVE, BALL, 1/2" FPT X 1/2" FPT												
34	1	1013.00017.00	SHANK FRONT HWB-2000												
35	1	1071.00012.00	C-RING, FOR TOMLINSON FAUCET												
36	1	1012.00002.00	NUT, FAUCET UNION TPD/HWB												
37	1	1071.00011.00	FAUCET, COMPLETE W/RED HANDLE, HWB-2000												
38	4	1102.00027.00	INSERT, LEG, ASSEMBLY, HWB-2000												
39	1	1025.00014.00	TUBE, 1/2"OD X 1/4"ID X 7.0"LG VENT. HWB-2000												
40	1	1025.00013.00	TUBE, 5/8"OD X 3/8"ID X 4.5"LG												
41	2	1086.00001.00	CLAMP, HOSE, .590"673" DIA RANGE												
42	1	1022.00011.00	INSULATION, TANK TOP, HWB-2015												
43	1	1401.00004.00	WIRING DIAGRAM, HWB-15, L1, L2+GND,120/208-240VAC, 2-HEATERS												
44	1	1402.00006.00	HARNESS, LOW AMP, 3PH, HWB-2015												
45	1	1402.00007.00	HARNESS, HIGH AMP, 3PH, HWB-2015												
46	1	1001.00027.00	COVER, TOP HWB-2015												
47	8	1082.00023.00	SCREW, #8-32 X 3/8 TRUSS HD PHIL., MACHINE												
48	1	1024.00022.00	GRIP, FLAT, RED (.25 x 2.00 x 1.13)												
49	2	1003.00030.00	COVER, DRAIN OPENING, HWB'S												
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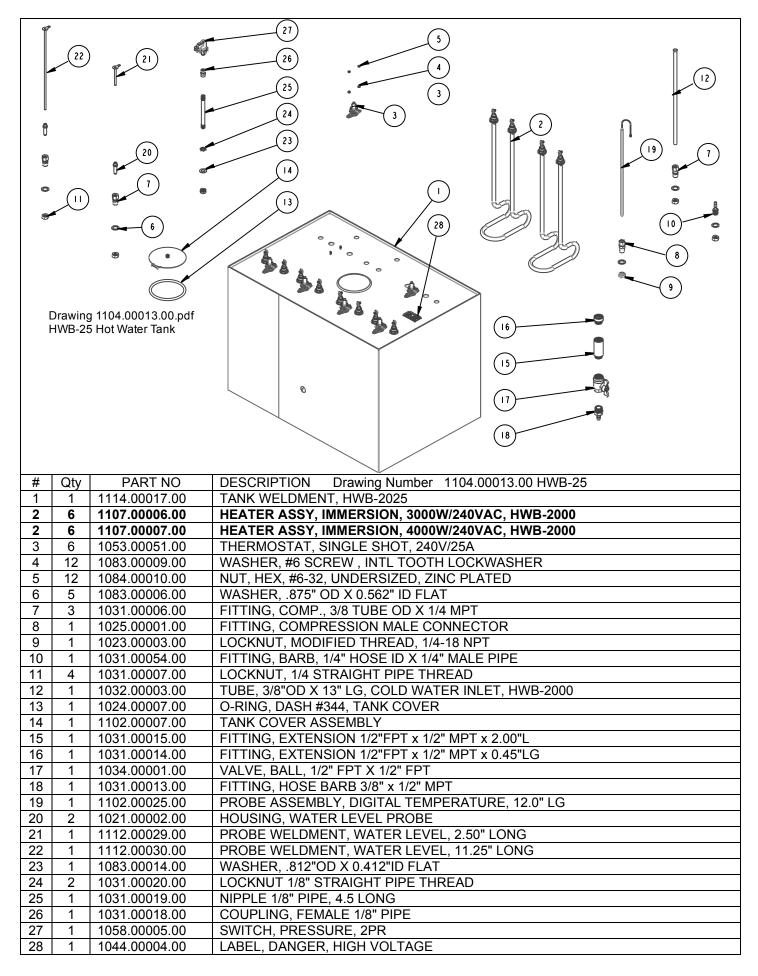
The proper controls voltage for domestic (Americas) equipment are 120Vac.

Domestic equipment is marked 120/208-240VAC to signify that the first voltage, the 120 Volt is 120 volts for the controls and inlet valve. This configuration also requires a NEUTRAL wire in the wiring bundle. The 208-240VAC of the 120/220-240 rating is for the heaters.

Brewers and parts marked as EXPORT are only for use in non-Americas equipment.

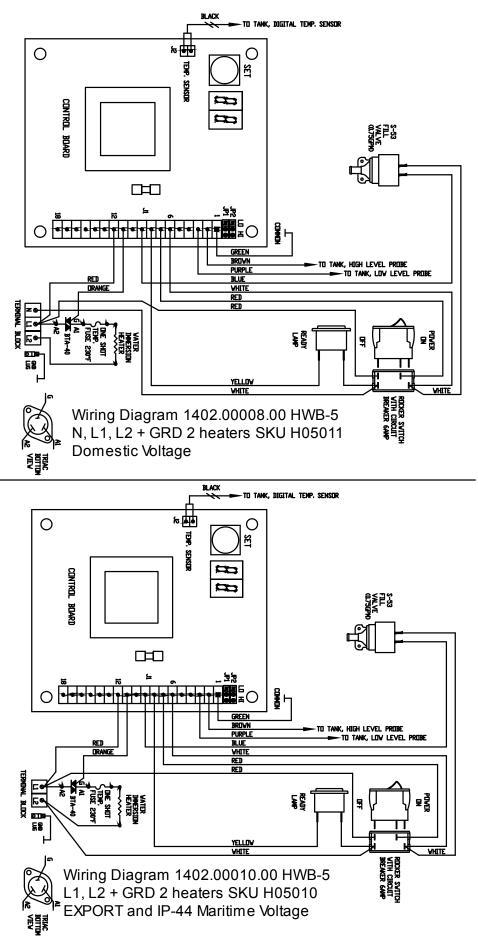
EXPORT equipment and IP-44 Maritime equipment have 240 volt control boards and inlet valves. The 240 volt control boards and inlet valves are only for use in equipment marked EXPORT or IP-44 Maritime. This equipment does not require a NEUTRAL in the wiring bundle and is not used for domestic (Americas) equipment

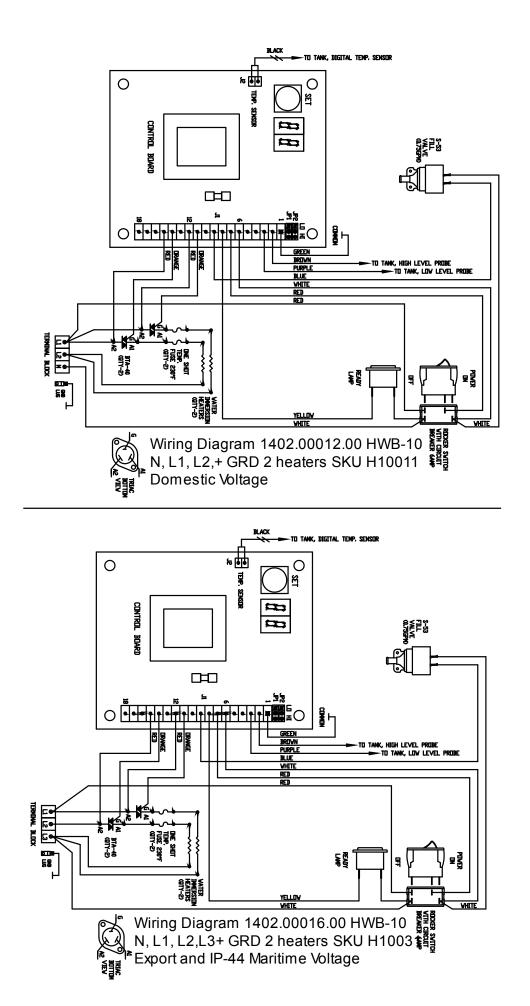
		ни	/B-2025 or HWB-25 Domestic - for Americas and EXPORT
#	Qty	PART NO	DESCRIPTION Drawing Number 1101.00452.00 HWB-25
1	1	1111.00010.00	BODY, WELDMENT, HWB-2025
2	6	1029.00007.00.	SPACER, #8 SCREW, 1/2" OD X 3/4" LG, RND UNTHR
3	3	1102.00028.00	SINK, HEAT, ASSEMBLY, HWB-2025
4	9	1083.00011.00	WASHER, #8 SCREW SIZE, INTERNAL TOOTH LOCK
5	9	1084.00006.00	NUT, 8-32 18-8 HEX MACHINE SCREW
6	1	1057.00006.00	VALVE, S-53, 120VAC 50/60HZ, 0.75GPM ±15%
6	1	1057.00044.00	FILL VALVE, S53, .75 GPM, 240VAC EXPORT ONLY
7	1	1024.00020.00	GASKET, S-53 FILL VALVE
8	1	1031.00004.00	FITTING, S-53 FILL VALVE INLET
9	1	1003.00019.00	BRACKET, S-53
10	4	1082.00019.00	SCREW, S-53 FILL VALVE
11	1	1031.00005.00	FITTING, 90° MALE ELBOW, 3/8 OD TUBE X 3/8 NPT
12	1	1086.00011.00	BUSHING, SNAP, 1.375 MTG HOLE
13	1	1031.00007.00	LOCKNUT, 1/4 STRAIGHT PIPE THREAD
14	1	1031.00016.00	FITTING, 90° ELBOW, 1/4" HOSE ID X 1/4" MPT
15	1	1031.00017.00	FITTING, BARB 1/4" HOSE ID x 1/4" FPT
16	1	1045.00006.00	OVERLAY, HWB-2025
17	1	1058.00004.00	LAMP, "READY" INDICATOR, GREEN, 110 VAC
18	1	1052.00003.00	BREAKER, CIRCUIT, 240VAC, ROCKER SWITCH, 6AMP
19	1	1065.00004.00	CONNECTOR, COPPER LUG SLU-70
20	1	1044.00003.00	LABEL GROUND
21	1	1108.00013.00	CTRL BOARD AND SOFTWARE ASSY, HWB-2000, 120VAC
21	1	1108.00012.00	CTRL BOARD AND SOFTWARE ASSY, HWB-2000, 230VAC EXPORT ONLY
22	6	1029.00006.00	NUT, FINGER KNURLED, #4-40
23	1	1052.00006.00	RELAY, OMRON, 120V, 1/2HP
24	1	1083.00009.00	WASHER, #6 SCREW , INTL TOOTH LOCKWASHER
25	1	1084.00010.00	NUT, HEX, #6-32, UNDERSIZED, ZINC PLATED
26	1	1022.00015.00	INSULATION, TANK BOTTOM, HWB-2025
27	2	1022.00014.00	INSULATION, TANK SIDE, HWB-2015/2025
28	1	1022.00017.00	INSULATION, TANK FRONT, HWB-2025
29	1	1022.00016.00	INSULATION, TANK BACK, HWB-2025
30	1	1104.00013.00	TANK ASSEMBLY, HWB-2025, 6 x 3kW/240VAC (see detailed drawing on page 24)
30	1	1104.00122.00	TANK ASSEMBLY, HWB-2025, 6 x 4kW/240VAC (see detailed drawing on page 24)
31	1	1052.00005.00	TERMINAL BLOCK TRACK
32	4	1052.00004.00	TERMINAL BLOCK
33	1	1013.00020.00	LOCKNUT, SHANK, 3/4-20
34	1	1013.00019.00	SHANK REAR HWB-2000
35	1	1034.00001.00	VALVE, BALL, 1/2" HWB-2000
36	1	1013.00017.00	SHANK FRONT HWB-2000
37	1	1071.00012.00	C-RING, FOR TOMLINSON FAUCET
38	1	1012.00002.00	NUT, FAUCET UNION TPD/HWB
39	1	1071.00011.00	FAUCET, COMPLETE W/RED HANDLE, HWB-2000
40	4	1102.00027.00	INSERT, LEG, ASSEMBLY, HWB-2000
41	1	1025.00014.00	TUBE, 1/2"OD X 1/4"ID X 7.0"LG VENT. HWB-2000
42	1	1025.00013.00	TUBE, 5/8"OD X 3/8"ID X 4.5"LG,COLD WATER, HWB-2000
43	2	1086.00001.00	CLAMP, HOSE, .590"673" DIA RANGE
44	1	1022.00018.00	INSULATION, TANK TOP, HWB-2025
45	1	1401.00006.00	WIRING DIAGRAM, HWB-2025, L1, L2, L3, N+GND, 120/208-240 VAC, 6 HEATERS
46	1	1402.00009.00	HARNESS, LOW AMP, 3PH, HWB-2025
47	1	1402.00008.00	HARNESS, HIGH AMP, 3PH, HWB-2025
48	1	1001.00030.00	COVER, TOP, HWB-2025
49	8	1082.00023.00	SCREW, #8-32 X 3/8 TRUSS HD PHIL., MACHINE
50	1	1024.00022.00	GRIP, FLAT, RED (.25 x 2.00 x 1.13)
51	2	1003.00030.00	COVER, DRAIN OPENING, HWB'S



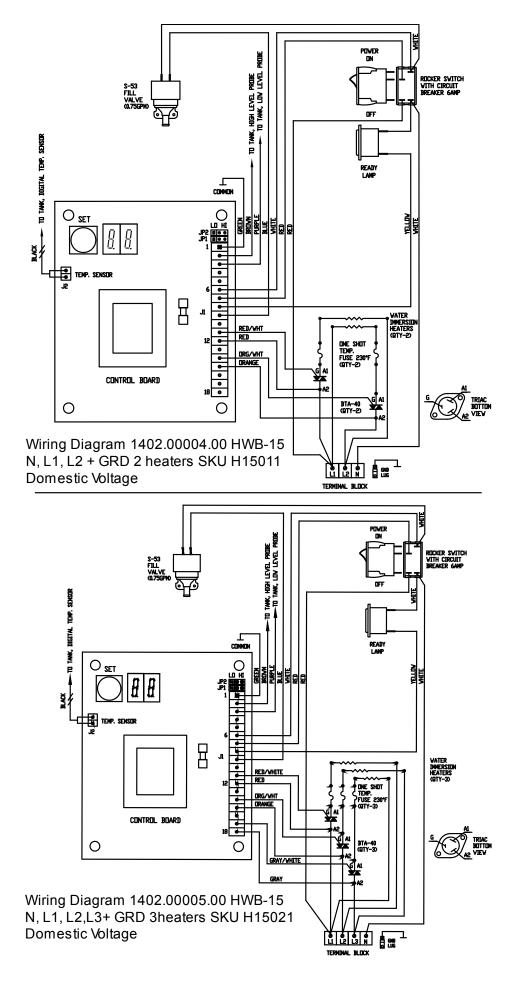
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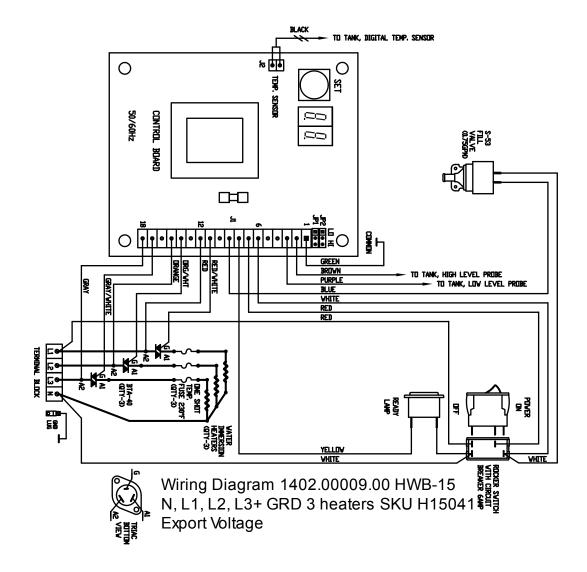
Wiring diagrams

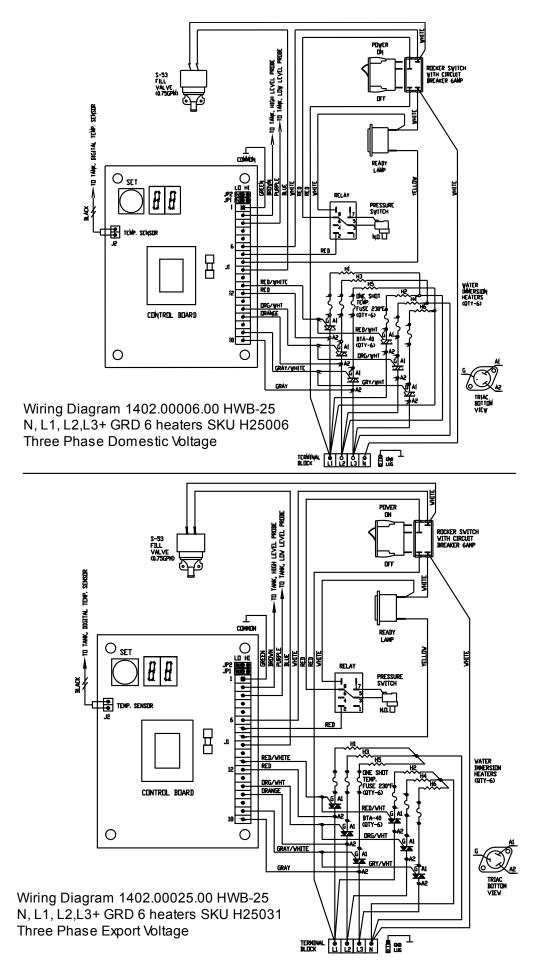




<u> Page 26</u>







# End of section notes

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