

Hot Water Dispensers

**Maritime Versions
Rated IP44**



Driven To Pioneer Innovation™

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Specifications

Maritime Versions with IP44 Ingress Protection Rating

Water Requirements

Pressure: 20-75 psig
Minimum Flow Rate: 1.5 gpm

Water Temperature

Factory Setting: 96°C / 205°F
Range: 82° - 98°C / 180° - 208°F

Weights & Capacities

Model	Weight (empty)	Water tank Capacity.	Weight (full)
HWB-5	44 lbs.	5 Gallons	85 lbs.
HWB-10	66 lbs.	10 Gallons	149 lbs.

Electrical Configuration and Heating Efficiency

HWB-5

Electrical Config. Code	Heater Configuration	Voltage (AC)	Phase	Wires	KW	Maximum Amp Draw	Hourly Heating Capacity* (gallons)	
							Cold Water	Hot Water
H05041MIP	1 X 3.0 KW	220	1 ph.	2 + ground	2.5	11.6	6.2	14.4
		240	1 ph.	2 + ground	3.0	12.6	7.4	17.2

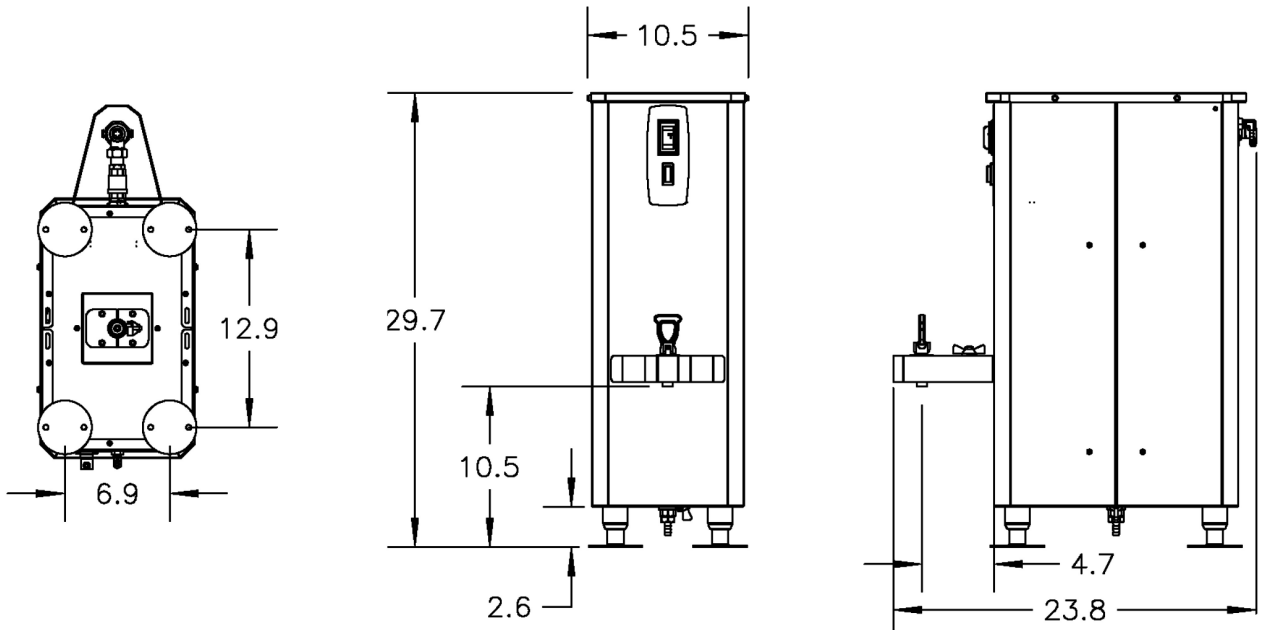
HWB-10

Electrical Config. Code	Heater Configuration	Voltage (AC)	Phase	Wires	KW	Maximum Amp Draw	Hourly Heating Capacity* (gallons)	
							Cold Water	Hot Water
H10031MIP	2 X 3.0 KW	220	3 ph.	3 + ground	5.0	11.6	12.5	28.8
		240	3 ph.	3 + ground	6.0	12.6	14.9	34.3

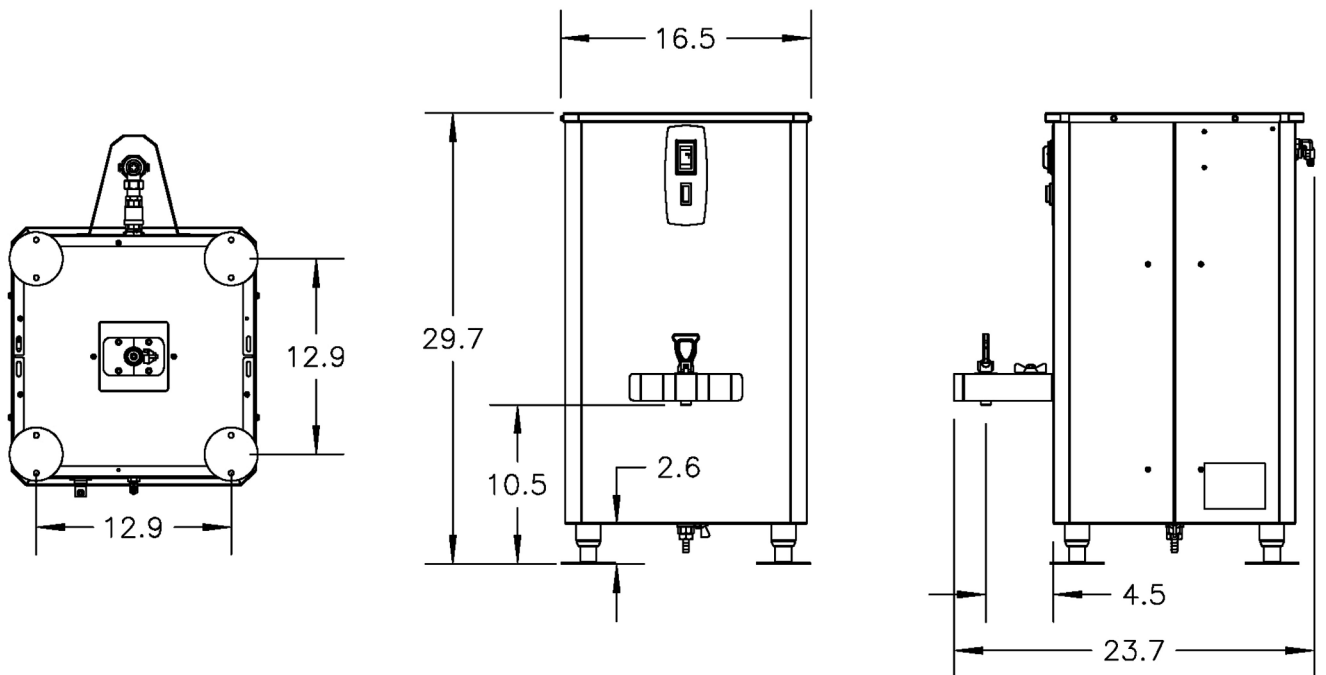
*Heating capacity is based on factory setting - 96°C / 205°F

Dimensions

HWB-5



HWB-10



Installation

(For Qualified Service Technicians Only)

Keys To A Successful Installation

Electrical:

- 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:

- The water line must be flushed thoroughly prior to connecting it to the dispenser to prevent debris from contaminating the machine. An in-line water filter is strongly recommended.
- Verify that the water line will provide at least 1.5 gallons per minute before connecting it to the dispenser.
- The end of the vent tube must be open to the air, not connected to anything or submerged in liquid.

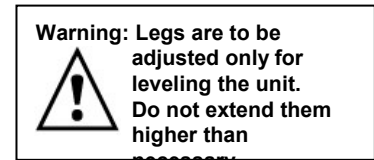
General:

- The installation must comply with applicable federal, state, and local codes having jurisdiction at your location.
- Utilize only qualified beverage equipment service technicians for installation. A Service Company Directory may be found on our web site, <http://www.fetco.com>.
- Do not adjust the thermostat settings unless absolutely necessary. They are set at the factory for optimum performance.

Installation Instructions

Setup

1. Before placing the unit, verify that it will fit in the space intended for it, and that the counter or table will support its' weight.
2. Place the unit on its back and screw in the legs.
3. Place the unit on the counter or stand.
4. When the unit is in position, level it front to back as well as side-to-side by adjusting the legs.
5. Mark the surface of the counter with the location of the mounting holes in the legs.
6. Drill ¼” diameter holes in the counter and secure the legs to the counter with bolts and nuts (not included).



Water Connection

1. The water inlet is a 3/8” male flare fitting.
2. The dispenser can be connected to cold or hot water. 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.
3. Install a shut off valve near the unit 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.
4. Flush the water supply line and filter **before** connecting it to the unit.
5. Verify that the water line provides at least 1.5 GPM, and that the water pressure is between 20 and 75 psig.

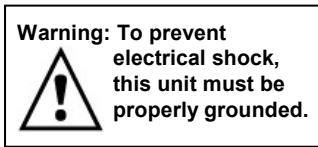
Vent Tube Connection

1. Condensation and steam from the water tank is discharged from the 3/8-inch hose barb fitting on the back of the unit.
2. Attach a hose (not provided) to the fitting and run it to a drain, sink or a container. The end of the vent tube must be open to the air, not connected to anything or submerged in liquid.

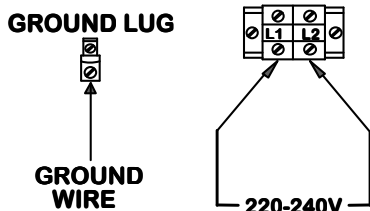
Electrical Connection

1. Verify that the actual voltage at the electrical service connection is compatible with the specifications on the unit's serial number label.
2. The temperature and water tank fill level are pre-set at the factory. There is no need to turn off the heaters during the installation process. The control board disables the heaters until the tank is full of water. The heating process will start automatically when the tank has filled.

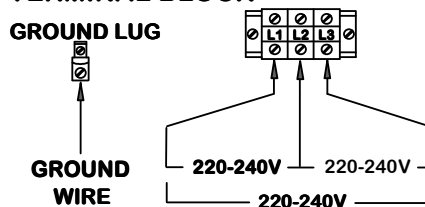
3. A terminal block is provided for connecting the incoming power wires. Consult local codes to determine if a cord and plug can be installed, or if the unit must be hard wired.
4. A fused disconnect switch or circuit breaker on the incoming power line must be conveniently located near the unit, and its location and markings known to the operators.
5. The body of the unit must be grounded to a suitable building ground. A ground lug is provided next to the power terminal block. Use only 10 gauge copper wire for grounding.
6. Electrical connections must be secured in-place within the unit to meet national and local standards.
7. Connect the incoming power wires to the terminal block in accordance with applicable codes.



HWB-5 TERMINAL BLOCK



HWB-10 TERMINAL BLOCK



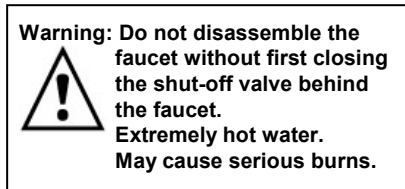
Final Setup

1. Turn on the incoming water supply line and inspect both inside and outside of the unit for leaks in all fittings and tubes.
2. Turn on the incoming power line and the power switch
3. Within 6 seconds, the water tank will begin filling until the probe at the top of the tank senses the water. The fill valve will pulse off and on while the tank is filling. The heaters will be disabled until the water probe at the top of the tank senses water.
4. Review the programming instructions and make any necessary adjustments.
5. Re-attach the cover after one final inspection for leaks.

Operator Training

Review the operating procedures with everyone who will be using the unit. Pay particular attention to the following areas:

1. Demonstrate the hot water faucet.
2. Demonstrate the shut off valve behind the faucet, and review the safety warning at right.
3. Show the location and operation of the water shut off valve and the circuit breaker for the unit.



Operating Instructions

Turn the 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, 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 shut-off valve located behind the faucet.

Operating Principles

When hot water is drawn from the faucet, the fill valve pulses on and off every few seconds to slowly refill the tank. (See %FV setting in the Programming section.)

By controlling the flow of incoming water, the amount of cold water entering the tank is synchronized with the rate at which the water can be heated. This ensures an uninterrupted supply of hot water. When dispensing water at a rate that exceeds the unit's capacity to heat, the flow of water out of the faucet will be diminished to maintain the proper temperature.

Maintenance

Quarterly:

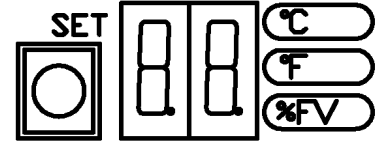
- Inspect all fittings and hoses for leaks.
- Inspect inside of tank for lime deposits. De-lime tank and probes if necessary. This procedure should be done by a qualified service technician.

Programming

The display shows the current water tank temperature in ° Celsius when in normal operating mode.

Temperature may be set in either Celsius or Fahrenheit.

Service note: Whenever the digital temperature probe is replaced, it will be necessary to reprogram all settings on the control board.



- ▶ Remove the top cover of the unit.
The control board is located on the left side near the front.
- ▶ Turn the power switch **ON**.
- ▶ Press and hold the **SET** button for 3 seconds.
Temperature setting in °C will be displayed and °C indicator lamp will be lit.
To adjust, press and release **SET** quickly to advance one degree at a time.
Range: 82-98 °C
- ▶ Press and hold **SET** for 3 seconds.
Temperature setting in °F will be displayed and °F indicator lamp will be lit.
To adjust, press and release **SET** quickly to advance one degree at a time.
Range 180-208 °F
Only the last 2 digits of the temperature will be displayed.

Example: 185°F is displayed as 8 5 205°F is displayed as 0 5

- ▶ Press and hold **SET** for 3 seconds. The fill valve % will be displayed and the %FV indicator lamp will be lit.
To adjust, press and release **SET** quickly to advance one percent at a time.
Refer to the chart below for the proper setting for your model and voltage.
Range: 15% – 100%.
- ▶ The unit will automatically return to normal operating mode after 30 seconds without programming activity.

Select the model and actual voltage to determine the correct %FV setting for step 5.

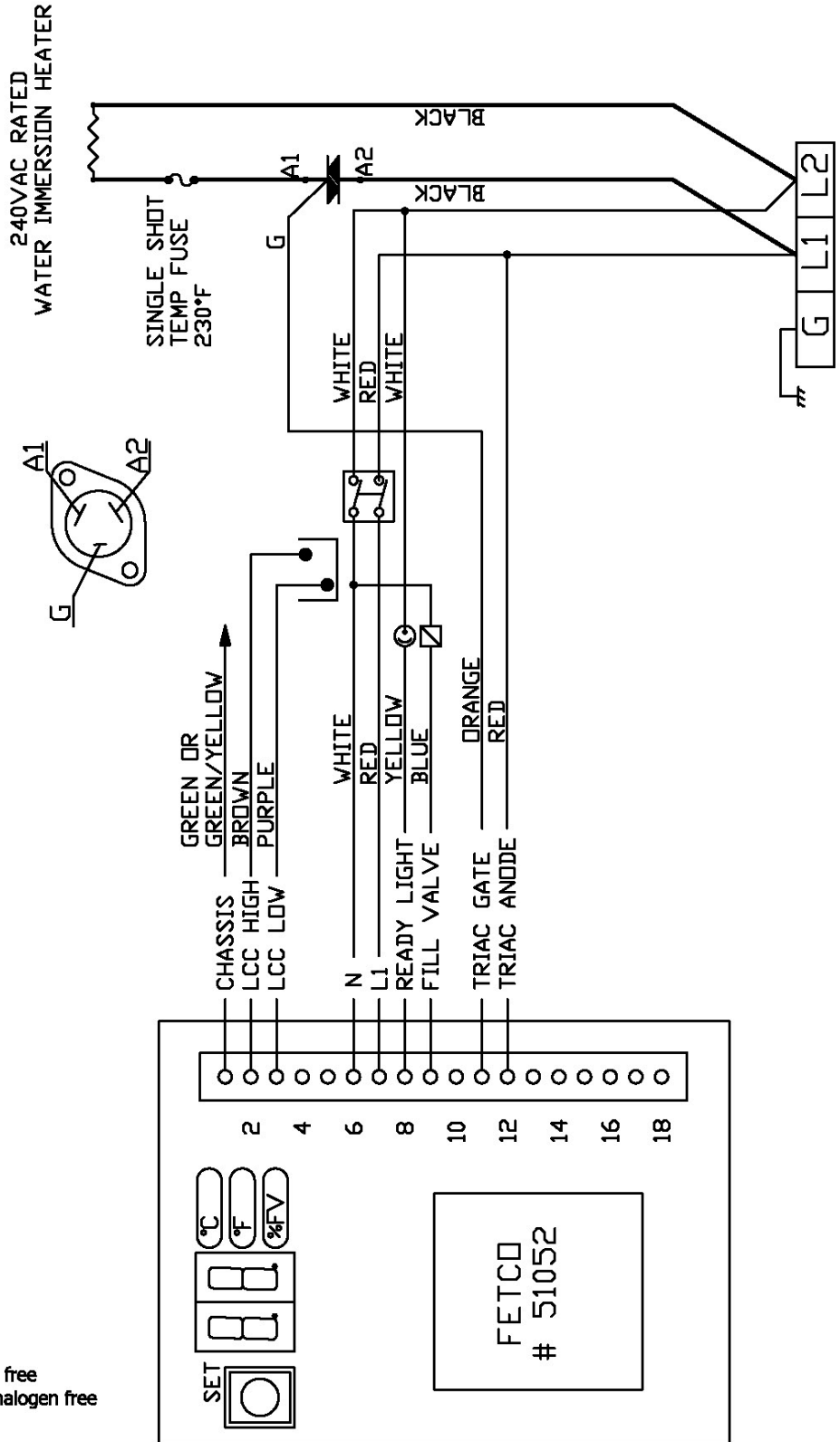
Model	Heater Configuration	Actual Voltage	Phase	%FV Setting
HWB-5	1 X 3000 watt	220	1 ph.	15
		240	1 ph.	17
HWB-10	2 X 3000 watt	220	3 ph.	28
		240	3 ph.	33

TEMPERATURE CONVERSION

°C	°F
82	180
83	181
83	182
84	183
84	184
85	185
85	186
86	187
87	188
87	189
88	190
88	191
89	192
89	193
90	194
90	195
91	196
92	197
92	198
93	199
93	200
94	201
94	202
95	203
95	204
▶ 96	205 ◀
97	206
97	207
98	208

▶ **factory setting** ◀
96°C / 205°F

Wiring Diagrams

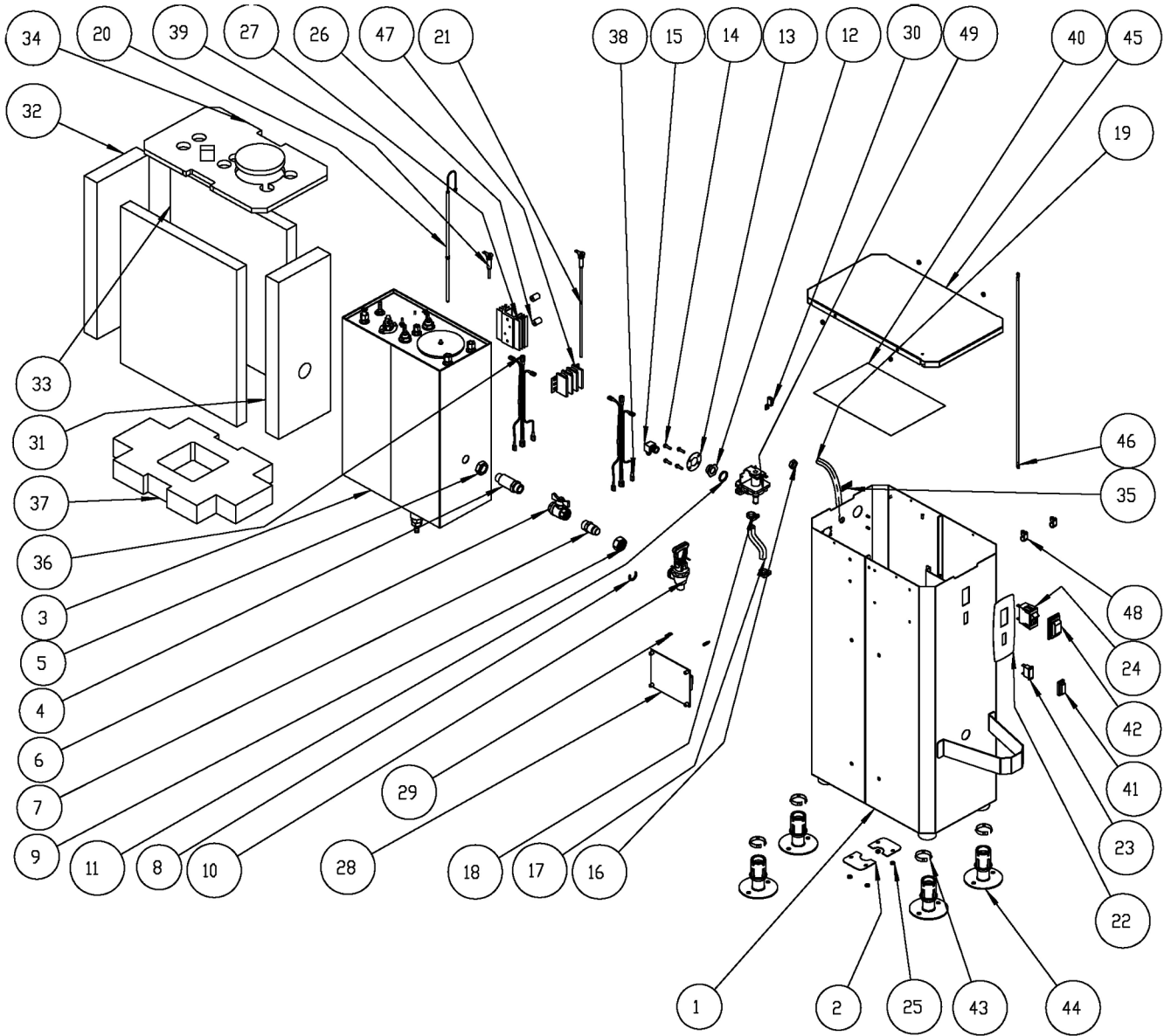


Notes:

- 1- All heater wires to be 10 AWG, halogen free
- 2- All control circuit wires to be 18 AWG, halogen free
- 3- All wires stranded, (tinned) copper, insulated, 105 Deg, 300V or higher

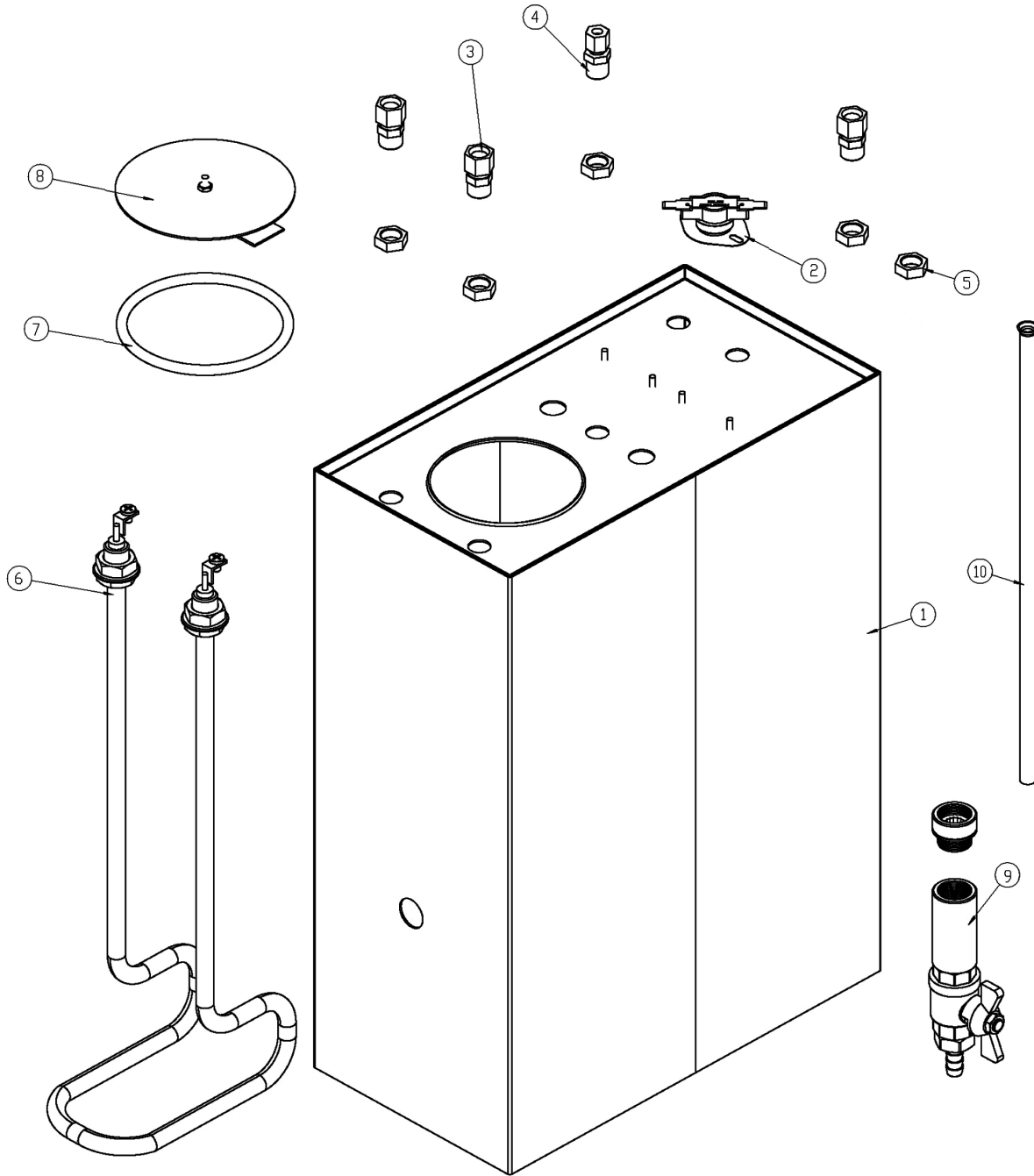
Parts

Figure 1 – HWB-5 – Main Assembly



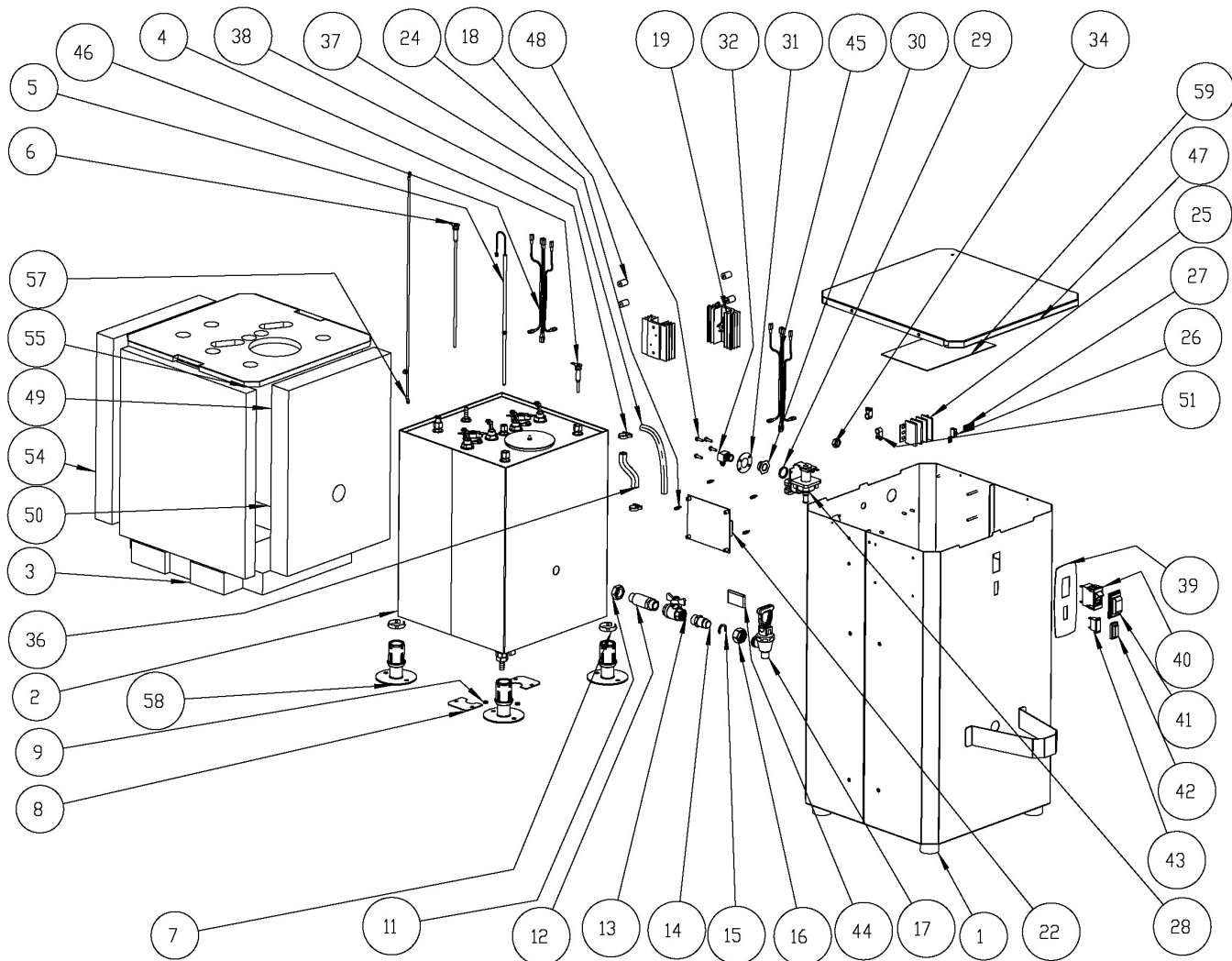
ITEM #	QTY	PART #	DESCRIPTION
1	N/A	N/A	NOT AVAILABLE FOR SALE
2	2	03496	COVER, DRAIN OPENING, HWB'S, 304SS
3	1	104042	ASSEMBLY, TANK HWB-2005 (SEE FIG. 2)
4	1	13083	SHANK REAR HWB-2000'S
5	1	84007	NUT, 3/4-16 HEX JAM
6	1	34007	VALVE, BALL, 1/2" HWB-2000
7	1	13082	SHANK FRONT HWB-2000'S
8	1	71036	C - RING
9	1	31045	NUT, UNION 1-1/8 HEX
10	1	71078	FAUCET, HWB-2000
10	1	71035	FAUCET SEAT CUP, ES
10	1	71079	FAUCET UPPER ASSEMBLY, RED HANDLE, HWB
11	1	24012	GASKET, S-53 FILL VALVE
12	1	31078	FITTING, S-53 FILL VALVE INLET
13	1	03074	BRACKET, S-53
14	4	82020	SCREW, S-53 FILL VALVE
15	N/A	N/A	NOT AVAILABLE FOR SALE
16	1	31117	LOCKNUT 1/4"-18 NPT
17	1	25107	TUBE, 5/8"OD X 3/8"ID X 4.5"LG,COLD WATER, HWB-2005
18	2	86007	CLAMP, HOSE, .593"-.656" DIA RANGE
19	1	25108	TUBE, 1/2"OD X 1/4"ID X 7.0"LG VENT. HWB-2005
20	1	102213	ASSEMBLY, DIGITAL TEMP. PROBE, 12.0"LG/34"LG WIRE
21	1	102222	ASSEMBLY, WATER LEVEL PROBE, HWB-2000
22	1	45085	OVERLAY, HWB-2005
23	1	58006	LAMP, BREW 120VAC
24	1	52076	BREAKER,CIRCUIT 120VAC ROCKER SWITCH 6 AMP
25	8	83076	WASHER,#8 SCREW SIZE, CUSHION AND SEALING
26	2	29020	SPACER, HOT WATER VALVE
27	1	102221	ASSEMBLY, HEAT SINK HWB-2005
28	1	108013	ASSY. BOARD, CONT.& SOFT, HWB-2000, 230VAC
29	4	15007	STANDOFF, MALE-FEMALE, THREADED HEX 4-40-1/2"
30	1	65002	CONNECTOR, COPPER LUG
31	1	22077	INSULATION, TANK FRONT, HWB-2005
32	1	22078	INSULATION, TANK BACK, HWB-2005
33	2	22079	INSULATION, TANK, SIDE, HWB-2005/2010
34	1	22092	INSULATION, TANK TOP, HWB-2005
35	1	44004	LABEL GROUND
36	1	402141	HARNESS, LOW AMP, HWB-2005
37	1	22076	INSULATION, TANK BOTTOM, HWB-2005
38	1	402142	HARNESS, HIGH AMP, HWB-5, IP44, HALOGEN FREE
39	1	102223	ASSEMBLY, WATER LEVEL PROBE, HWB-2000, CBS-70'S
40	1	401370	WIR.DIAG., HWB-5, L1, L2+GRND,240VAC, 1 HTR
41	1	58086	BOOT, PROTECTIVE, NEON LAMP, IP44
42	1	52093	BOOT, PROTECTIVE, POWER SWITCH, IP44
43	N/A	N/A	NOT AVAILABLE FOR SALE
44	4	73021	LEG, INSERT, ADJ. FOOT S/S FLANGED W/ HOLES
45	1	002461	WELDMENT, COVER, HWB-5, 304 S.S.
46	1	402145	GROUND WIRE, HALOGEN FREE
47	1	52050	TERMINAL BLOCK
48	N/A	N/A	NOT AVAILABLE FOR SALE
49	1	57059	FILL VALVE, S53, .75GPM, 240V EXPORT

Figure 2 – HWB-5 – Tank Assembly, Part # 104042



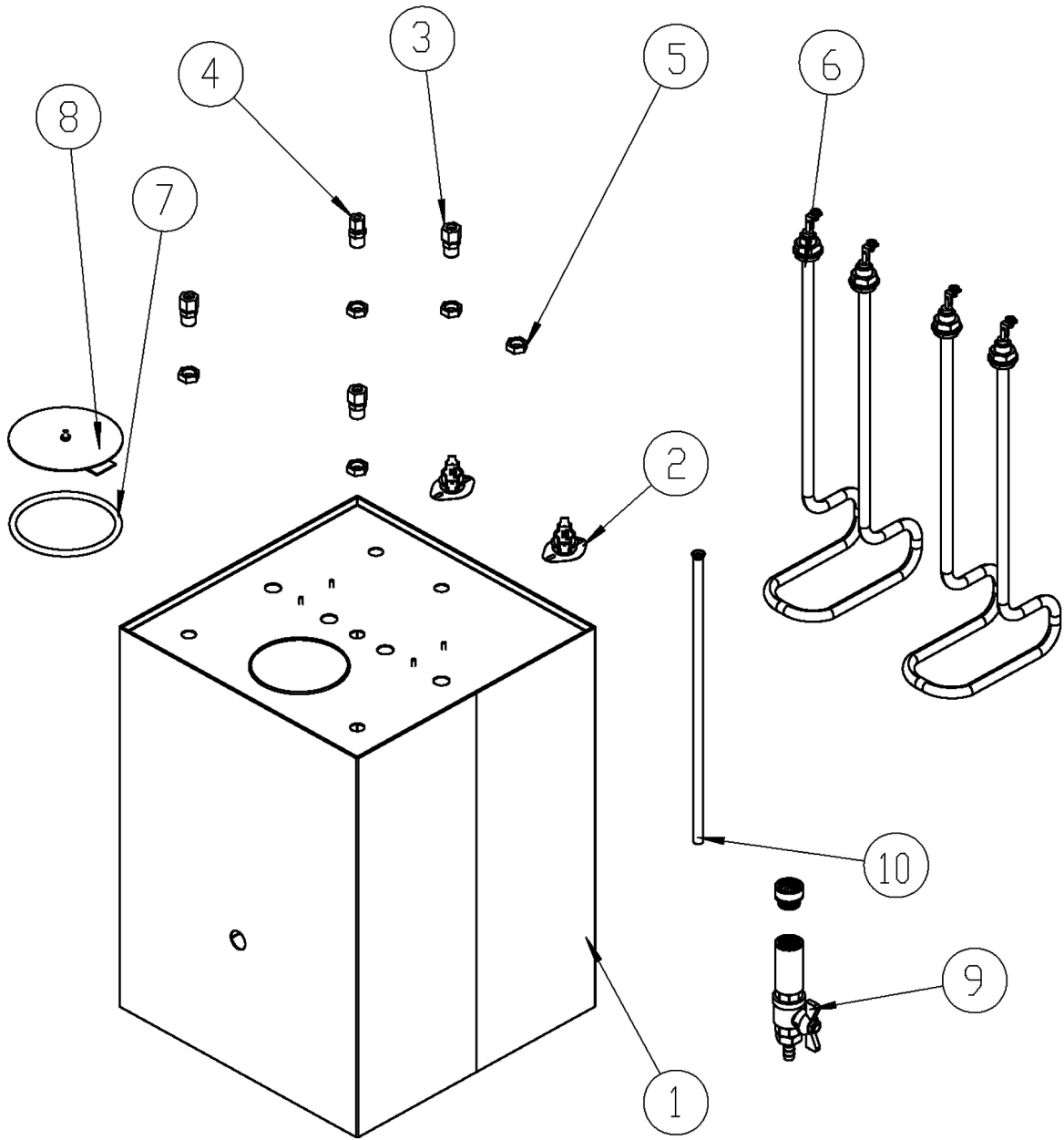
ITEM #	QTY	PART #	DESCRIPTION
1	1	004027	WELDMENT, TANK HWB-2005
2	1	53071	THERMOSTAT, SINGLE SHOT, 25A
3	N/A	N/A	NOT AVAILABLE FOR SALE
4	N/A	N/A	NOT AVAILABLE FOR SALE
5	5	31117	LOCKNUT 1/4"-18 NPT
6	1	107004	ASSEMBLY, HEATER, IMMERSION, 3000W/240VAC
7	1	24002	O-RING, TANK COVER
8	1	102013	ASSEMBLY, TANK COVER
9	1	102224	ASSEMBLY, TANK DRAIN, HWB-2000
10	1	32067	TUBE, 3/8"OD X 13.0LG COLD WATER INLET HWB-2000

Figure 3 – HWB-10 – Main Assembly



ITEM #	QTY	PART #	DESCRIPTION
1	N/A	N/A	NOT AVAILABLE FOR SALE
2	1	104044	ASSEMBLY, TANK HWB-2010 (SEE FIG. 4)
3	1	22107	INSULATION, TANK BOTTOM, HWB-2010
4	1	102223	ASSEMBLY, WATER LEVEL PROBE, HWB-2000, CBS-70'S
5	1	102213	ASSEMBLY, DIGITAL TEMP. PROBE, 12.0"LG/34"LG WIRE
6	1	102222	ASSEMBLY, WATER LEVEL PROBE, HWB-2000
7	N/A	N/A	NOT AVAILABLE FOR SALE
8	2	03496	COVER, DRAIN OPENING, HWB'S, 304SS
9	8	83076	WASHER,#8 SCREW SIZE, CUSHION AND SEALING
11	1	84007	NUT,3/4-16 HEX JAM
12	1	13083	SHANK REAR HWB-2000'S
13	1	34007	VALVE, BALL, 1/2" HWB-2000
14	1	13082	SHANK FRONT HWB-2000'S
15	1	71036	C - RING
16	1	31045	NUT, UNION 1-1/8 HEX
17	1	71078	FAUCET, HWB-2000
17	1	71035	FAUCET SEAT CUP, ES
17	1	71079	FAUCET UPPER ASSEMBLY, RED HANDLE, HWB
18	4	29020	SPACER, HOT WATER VALVE
19	2	102221	ASSEMBLY, HEAT SINK HWB-2005
22	1	108013	ASSY. BOARD, CONT.& SOFT, HWB-2000, 230VAC
24	4	15007	STANDOFF, MALE-FEMALE, THREADED HEX 4-40-1/2"
25	1	52050	TERMINAL BLOCK
26	1	65002	CONNECTOR, COPPER LUG
27	1	44004	LABEL GROUND
28	1	57059	FILL VALVE, S53, .75GPM, 240V EXPORT
29	1	24012	GASKET, S-53 FILL VALVE
30	1	31078	FITTING, S-53 FILL VALVE INLET
31	1	03074	BRACKET, S-53
32	N/A	N/A	NOT AVAILABLE FOR SALE
34	1	31117	LOCKNUT 1/4"-18 NPT
36	1	25107	TUBE, 5/8"OD X 3/8"ID X 4.5"LG,COLD WATER, HWB-2005
37	1	25108	TUBE, 1/2"OD X 1/4"ID X 7.0"LG VENT. HWB-2005
38	2	86007	CLAMP, HOSE, .593"-.656" DIA RANGE
39	1	45086	OVERLAY, HWB-2010
40	1	52076	BREAKER,CIRCUIT 120VAC ROCKER SWITCH 6 AMP
41	1	52093	BOOT, PROTECTIVE, POWER SWITCH, IP44
42	1	58086	BOOT, PROTECTIVE, NEON LAMP, IP44
43	1	58006	LAMP, BREW 120VAC
44	1	24061	GRIP, FLAT, RED 0.25 X 2 X 1.125
45	1	402144	HARNESS, HIGH AMP, HWB-10, IP44, HALOGEN FREE
46	1	402143	HARNESS, LOW AMP, HWB-10, IP44, HALOGEN FREE
47	1	002465	WELDMENT, COVER, HWB-10, 304 S.S., IP-44
48	4	82020	SCREW, S-53 FILL VALVE
49	1	22108	INSULATION, FRONT, TANK, HWB-2010
50	2	22079	INSULATION, TANK, SIDE, HWB-2005/2010
51	N/A	N/A	NOT AVAILABLE FOR SALE
54	1	22109	INSULATION, TANK BACK, HWB-2010
55	1	22093	INSULATION, TANK, TOP, HWB-2010
57	1	402145	GROUND WIRE, HALOGEN FREE
58	4	73021	LEG, INSERT
59	1	401368	WIRING, DIAGRAM HWB-2010

Figure 4 – HWB-10 – Tank Assembly, Part # 104044



ITEM #	QTY	PART #	DESCRIPTION
1	1	004028	WELDMENT, TANK HWB-2010
2	1	53071	THERMOSTAT, SINGLE SHOT, 25A
3	N/A	N/A	NOT AVAILABLE FOR SALE
4	N/A	N/A	NOT AVAILABLE FOR SALE
5	5	31117	LOCKNUT 1/4"-18 NPT
6	2	107004	ASSEMBLY, HEATER, IMMERSION, 3000W/240VAC
7	1	24002	O-RING, TANK COVER
8	1	102013	ASSEMBLY, TANK COVER
9	1	102224	ASSEMBLY, TANK DRAIN, HWB-2000
10	1	32067	TUBE, 3/8"OD X 13.0LG COLD WATER INLET HWB-2000

