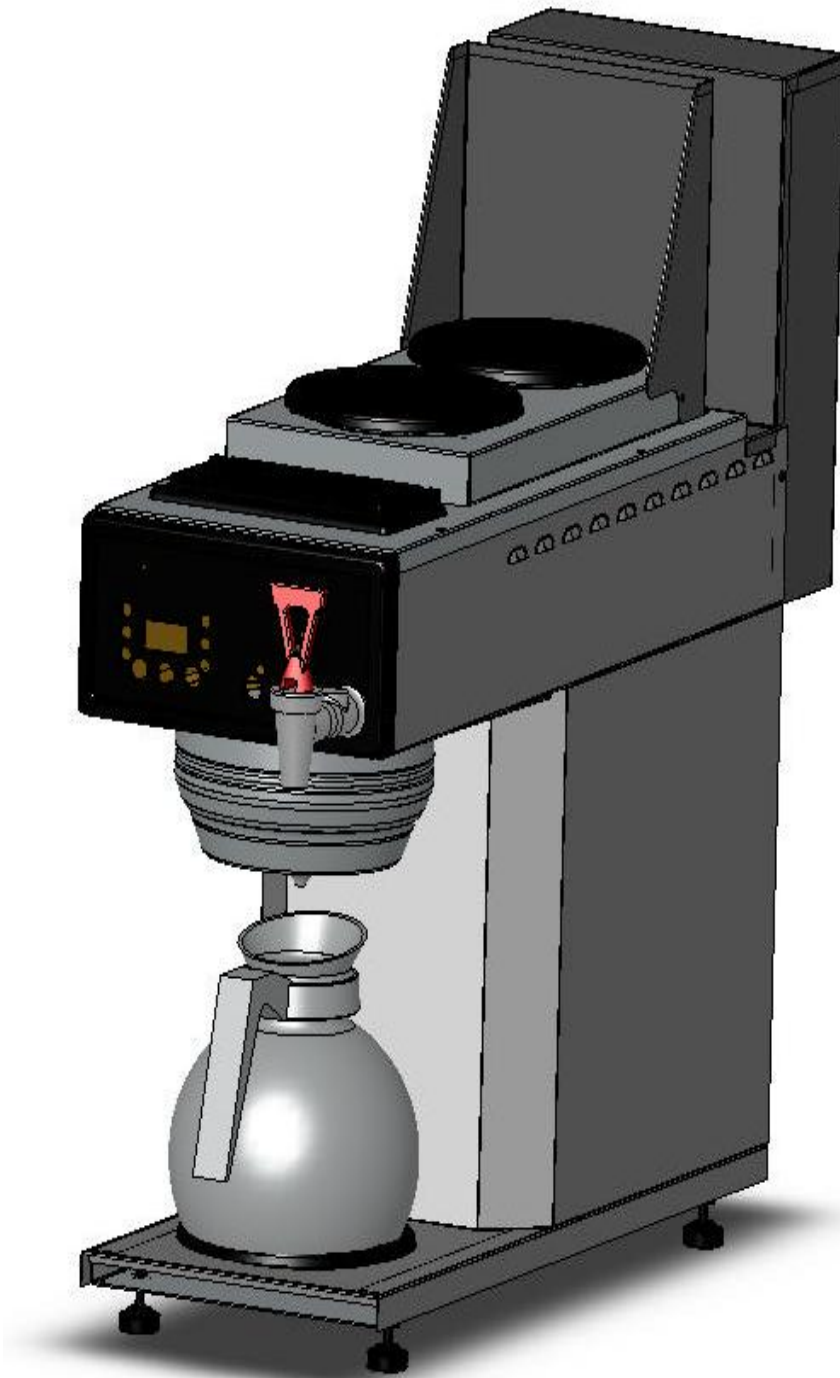
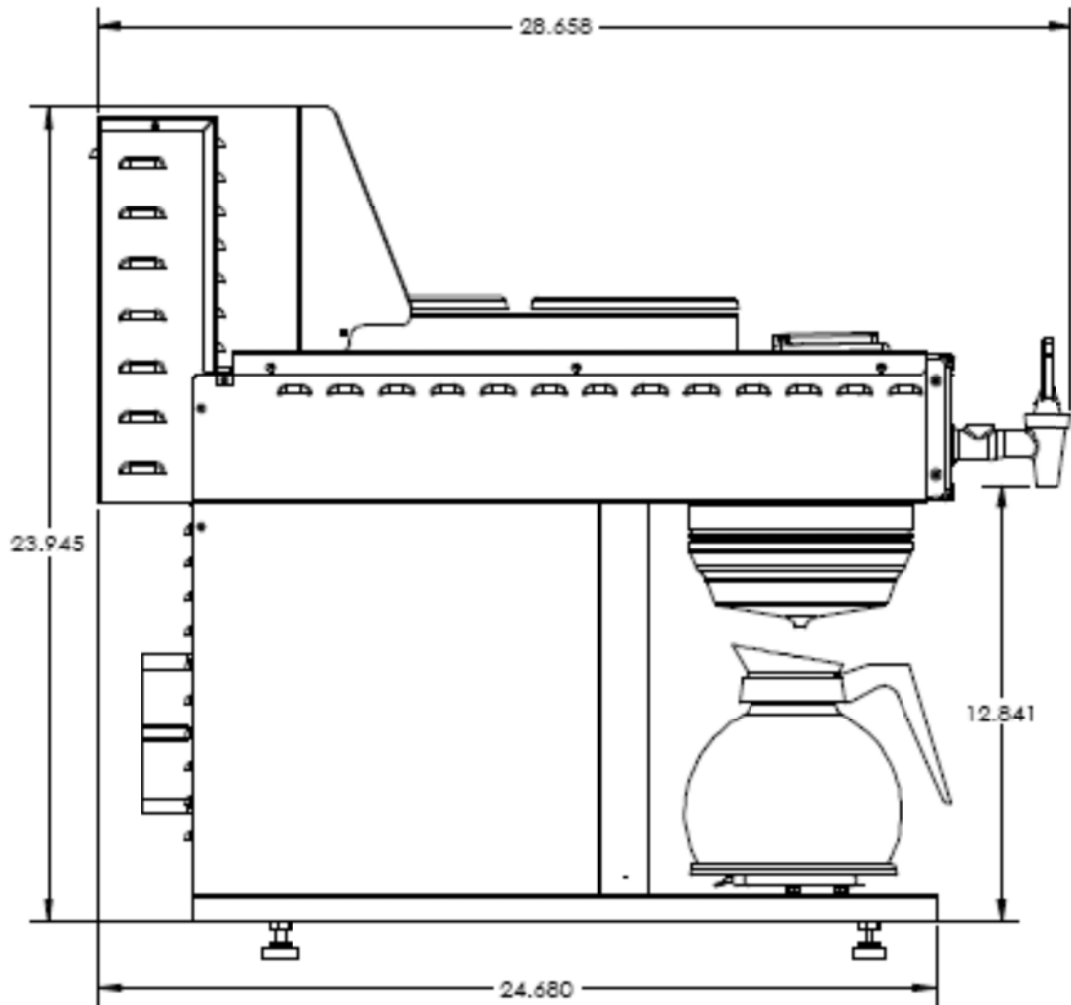


INSTALLATION and OPERATION MANUAL  
For MODEL AKPA-3 DB-T HW  
TEA BREWER & HOT WATER FAUCET MACHINE

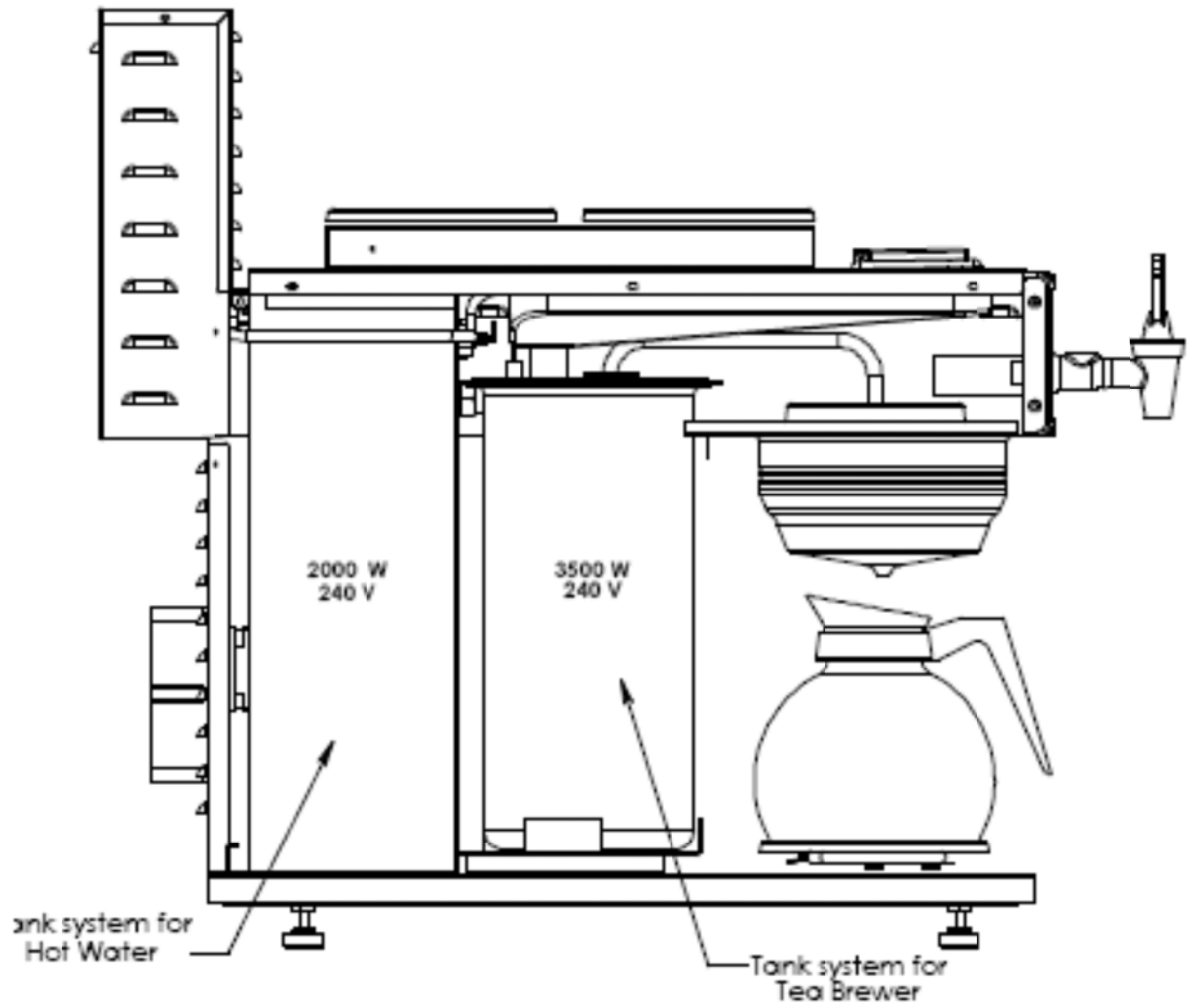




AKPA DBT-3 HW  
Combination  
Hot Water/Tea Brewer



## AKPA DBT-3 HW SPECIFICATIONS



### **Brewer Specs:**

Electrical: 6000W

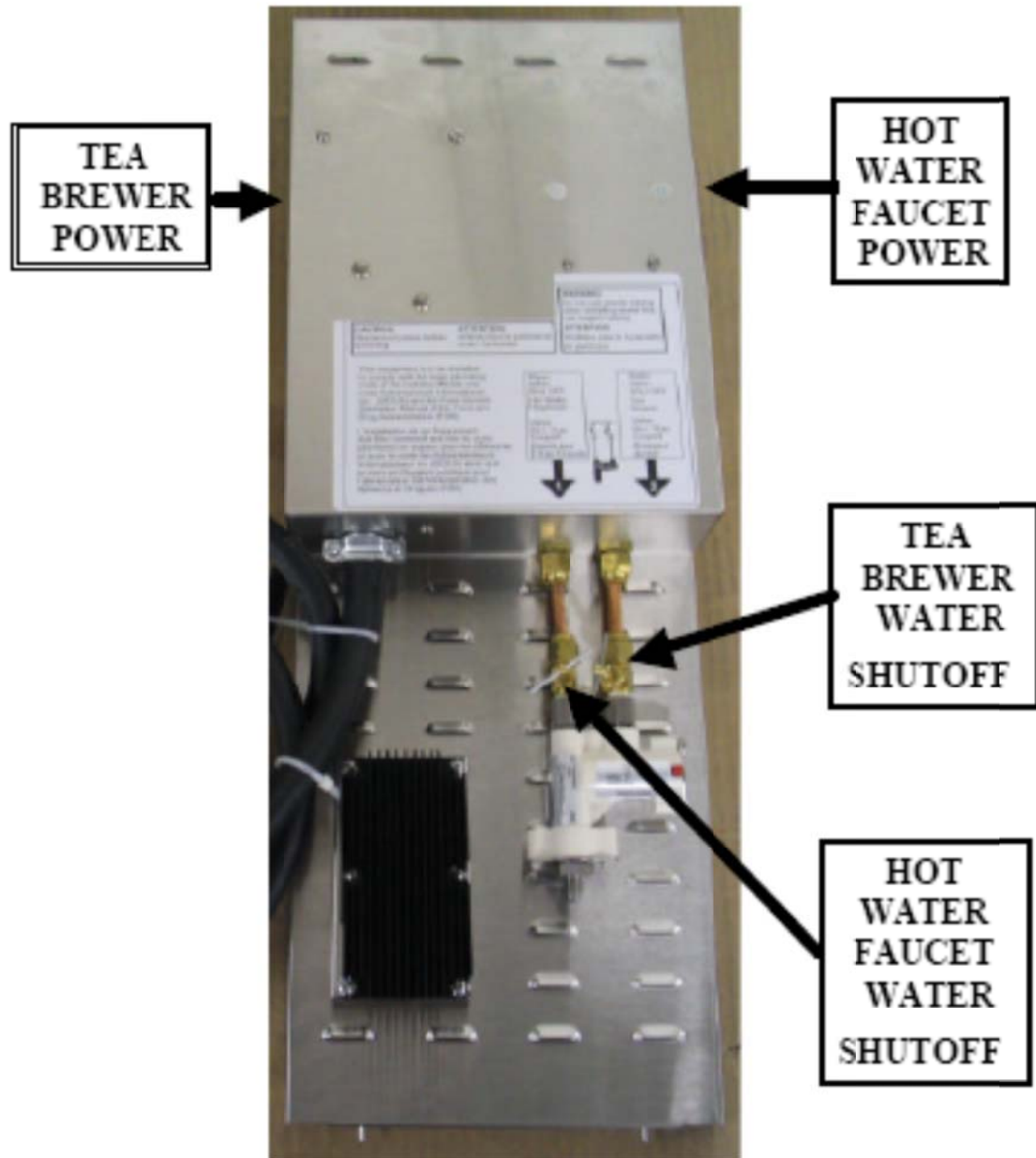
240V 30 Amps Single Phase

Hot Water Tank: 2.2 Gallon Cap.

Independent Hot Water System with Power Switch

Independent Tea Brewer with Power Switch

### ELECTRICAL AND PLUMBING CONTROLS (REAR OF MACHINE)



## BREWER SETUP

### PLUMBER'S INSTALLATION INSTRUCTIONS

**CAUTION:** Power to brewer must be OFF before proceeding with plumbing installation.

- 1) Flush water line before installing brewer. Brewer should be connected to COLD WATER LINE for best operation.
- 2) Water pressure should be at least 20 lbs. For less than a 25 ft run, use 1/4" copper tubing and connect to 1/2" or larger water line. For longer runs, use 3/8" copper tubing & connect to 1/2" or larger water line and provide an adapter fitting for connection to the brewer.
- 3) If installed with saddle valve, the valve should have a minimum of 1/8" port hole for up to 25 ft run, and 5/16" port hole for over 25 ft runs.
- 4) Connect incoming water line to the flow control device on the back of the brewer. A 1/4" flare fitting is provided. Manufacturer recommends connecting to copper tubing.

### ELECTRICAL HOOKUP

**WARNING:** - Read and follow installation instructions before plugging or wiring in machine to electrical circuit. Warranty will be void if machine is connected to any voltage other than that specified on the name plate.

The brewer has a power cord attached and is configured with a twist type plug, NEMA type L14-30. Brewer should be connected to the appropriate receptacle type. A wiring diagram at the rear of this manual illustrates the complete brewer wiring. Note that the tank heater system is the only portion of the brewer running on 240V. The balance of components is powered by 120V obtained by tapping one leg, L1, of the circuit. An internal transformer provides low voltage power to the control portion of the circuit.

### INSTALLATION INSTRUCTIONS

**WARNING:** - Read and follow installation instructions before plugging or wiring in machine to electrical circuit.

1) Connect brewer to water line as described in "PLUMBER'S INSTALLATION INSTRUCTIONS". Connect to suitable power supply as described in "ELECTRICAL HOOKUP". Turn power switch on for tea brewer and hot water machine, the tanks will begin to fill. The blue filtering light will indicate filling is in process. Time required to fill the tanks is about 4-1/2 minutes. Fill times much shorter or longer than noted may indicate the PDS valve is out of calibration. The PDS valve is the flow control device located on the rear of the machine and is factory set to the correct flow rate. See the "PDS VALVE CALIBRATION" section for information on setting the proper flow control rate (tea machine).

Water levels in the tea brewer & hot water faucet tank are independently controlled by level probes which sense when water contact is made. A maximum run time of six minutes is programmed into the tea brewer for the initial fill cycle to prevent flooding should an error occurs. Should the tea brewer call for water for a time period in excess of 6 minutes the brewer will shut down the fill circuit and display an Er1 message. See the "ERROR MESSAGES" section for instructions on how to clear the error and possible causes.

2) Once the water level has reached the proper water levels the tank heaters will begin to heat the water to the preset temperatures. This prevents premature failure of the element by heating it dry. This probe will also call for power to be shut off to the element should the water level fall below it (tea brewer). Heating time will be approximately 10 minutes. The heating circuit has a maximum continuous run time of 30 minutes. Should the tea brewer call for heat for a time period in excess of 30 minutes the brewer will shut down the heating circuit and display an Er2 message. See the "ERROR MESSAGES" section for instructions on how to clear the error and possible causes. The heating light on the faceplate will indicate heating status. As the preset temperature is approached the light will begin pulsing as the power to the element is cycled on and off.

3) Place a suitable container in place below the brew basket to catch water. Depress one of the brew start/stop switches. If the brewer is up to temperature the brew cycle will begin immediately, if not the brewer will go into autoarm mode. In autoarm mode the heating light will begin to flash but the fill portion of the brew cycle will not begin until the optimum (preset) temperature has been reached. In higher altitude locations (5000 feet above sea level) the tank temperature may have to be adjusted lower to prevent boiling. Compare the delivered volume to the programmed volume for the brew selected. Factory settings are 30 oz for the half pot of tea and 60 oz for the full pot of tea. If volume delivered varies substantially from the preset volume the PDS valve is out of calibration. See the "PDS CALIBRATION" section for information on setting the proper flow control rate. See the "PROGRAMMING" section for instructions on adjusting the preset tank temperature and brew volume(s).

## **TEA MACHINE OPERATION INSTRUCTIONS**

### **TEA PREPARATION PROCEDURES**

- 1) Place filter into brew basket.
- 2) Put the proper amount of tea into filter for volume to be brewed.
- 3) Slide the brew basket into holder above the lower warmer plate.
- 4) Place an empty carafe in place below the brew basket.
- 5) Press brew start/stop switch for brew volume desired.

A brew cycle may be initiated even if the heating light is on. Ready light indicates the tank has reached the preset temperature. If the autoarm feature is enabled and the tank has not reached brewing temperature the heating light will begin to flash indicating that the brewer is heating and will begin to brew immediately after the heating cycle is complete. Do not remove decanter. Brew cycle may be canceled by depressing the brew start/stop switch. Heating light will cease flashing but may remain on or may pulse if preset temperature has not been reached.

6) Hot water will be delivered through the sprayhead. This distributes the hot water over the tea within the brew basket. The brewed tea will drain from the brew basket into the decanter below.

7) The LED display will count the brew time down until all the liquid has finished flowing from the brew basket. Do not remove decanter until the brewing process has stopped and all liquid has stopped flowing from the brewbasket. See the "PROGRAMMING" section for instructions on adjusting the visibrew time. Visibrew is the time allowed after the brew cycle for the hot tea to finish draining from the brewbasket.

8) After the brew cycle has completed the audible beep will sound and the brew basket icon will flash. Press the quality button to cancel the beep and to turn off brewbasket icon. To clean brew basket simply remove from brew rails and dump filter into waste basket. Rinse basket if desired and replace in brewer. The brewing process, as described above, can now be started again.

### **QUALITY CHECK**

The quality check mode is used to display the programmed brew volume(s) in ounces, actual tank temperature and the total number of brews for each side. To activate the display depress the quality check button. When the button is depressed the display will show the programmed volume in ounces that brew one (TEA 1/2) is set for. Subsequent presses of the QUALITY button will display brew volume for brew 2 (TEA 1), the actual tank temperature and total number of brews for brew 1 and brew 2. The selected item will display until beginning a brew cycle or pressing cancel.

## TEA BREWER FEATURE DESCRIPTIONS

The AKPA brewer incorporates the latest features in brewer control technology. Although providing for enhanced functionality brewer controls remain intuitive and setup of key operating parameters couldn't be easier. Multiple brew volumes, visa-brew delay, tank temperature set point, brew mode, filter parameters and more are all set from the front control panel using a digital display for precise control. The Tim Horton brewers incorporate an additional program sequence, "Quality Check", which allows display of the programmed brew volume(s) in ounces, actual tank temperature and number of brews. The quality information is displayed using a quality check button. The following pages will explain the control features and then step through the process required to program your unit.

**Brew Volume** – The Digi Brew II series control has two independently programmable brew volumes denoted Tea 1/2 and Tea 1. Brew time is set by desired brew volume in ounces. Either of these brew times may be turned off or set for any volume from 30 ounces to 255 ounces for the ultimate in flexibility. Selected brew volume is converted to brew time internally for calculations and to add to countdown time. PDS valve must be calibrated to deliver 1/4 gallon per minute in order to ensure programmed brew volume is delivered.

**Quality Check Mode** – The quality check mode is used to display the programmed brew volume(s) in ounces, actual tank temperature and the total number of brews for each side. To activate the display depress the quality check button. When the button is depressed the display will show the programmed volume in ounces that brew one (TEA 1/2) is set for. Subsequent presses of the QUALITY button will display brew volume for brew 2 (TEA 1), the actual tank temperature and total number of brews for brew 1 and brew 2. The selected item will display until beginning a brew cycle or pressing cancel.

**Visa-Brew Time** – Provides for additional time to add to the programmed brew time. This additional time allows display to continue countdown after the water delivery portion of brew cycle to allow for the coffee to finish draining from the brew basket. The digital countdown, and the delay in the audible coffee ready signal, aid in preventing premature removal of either the brew basket or the dispenser.

**Water Temperature Set Point** – Allows for digitally setting the temperature of the water in the brewers tank system to any value between 170 and 205 Deg F. Caution: Brewer temperature is set at 203 deg and Hot Water Dispenser is set at 205 deg. In higher altitude locations, over 3500 feet above sea level, the temperature will need to be adjusted down to prevent boiling.

**Auto Arm** – When enabled this feature ensures that the brewer is up to temperature prior to brewing to ensure proper extraction is obtained. If the water temperature in the tank is below the water temperature set point when the brew cycle is initiated the water delivery portion of the brew cycle is delayed. The heating light will begin to flash indicating that the unit is in the brew mode but is not up to temperature. At the same time the tank heater will begin heating and when the tank reaches the preset temperature the brew cycle will resume. Auto arm may be overridden by pressing and holding the appropriate brew button for several seconds until the brew cycle starts.

**Pre-infusion mode** – This mode delivers a small amount of hot water over the coffee grounds and then pauses to allow wetting of the brewed product and to allow the product to absorb the water before continuing. After this pause the brew cycle resumes normally. Pre-infusion can yield better extraction rates than normal brewing modes. The pause time is added to the brew and visa-brew time. The pre-infusion times are preset at the factory. Pre-infusion for Brew 1 and 2 may be turned on and off independently.

**Pulse Brew Mode** – This mode cycles the fill valve on and off during the brew cycle. This slows the entry of cold water into the tank and minimizes the mixing action caused by introducing a large volume of cold water into the tank at one time resulting in an increase in brew temperature. The additional turbulence and mixing created in the brew basket along with the increased temperature can result in higher extraction rates for the coffee or tea. The time set for pulse brewing should exceed the time required for brewing. The time difference between the pulse brew time and the brew time is the amount of time available as off time. The difference is divided equally and distributed throughout the brew cycle to provide a pulse after every 30 seconds of brewing. Pulse brew mode for Brew 1 and 2 may be turned on and off independently.

**Audible Alert Mode** – Provides an audible signal when tea has finished brewing notifying everybody that fresh tea is available. May be turned off, set for 1-9 beeps or set to on for continuous beeping until cancel button is depressed. The empty basket light will also flash to prompt operator to dump grounds from brew basket.

**Brew Ready** – Monitors the temperature of the water in the tank and lights when the programmed temperature has been reached. If a brew cycle is started when the icon is not lit brew temperature may not be optimal if the autoarm feature, described above, has been turned off.

**Filtering Flow Rate** – This is the flow rate of incoming water and is used to calculate the volume of water that has been filtered. The flow rates may be turned off or set for .25, .50, .75 or 1.00 gallon per minute (gpm) flow rates. The PDS valve on the rear of the unit should be calibrated to match the recommended flow rate of .25 gpm to properly display the brew volume in the quality check mode and to deliver the programmed brew volume.

**Filter Capacity** – The filtering capacity in gallons of the filter installed (optional) on the brewer may be selected here. Capacity may be turned off or set for one of the following available values; 0, 500, 1500, 2000 or 2500 gallons.

**Number of Brews** – The number of brew cycles started may be tracked with this feature. The accumulated number of cycles may be reset by using the brew buttons to display “Clr” when in the program mode and then depressing quality button. The Quality check feature will also display the number of brews for both brew selections. The display is limited to 999 however the control tracks up to 4000 brews internally. For each 1000 brew cycles completed a decimal point on the display is also illuminated. Thus if 2 decimal points and 500 are displayed for TEA 1/2, there have been 2500 brew cycles since the counter was last reset.

**Auto Warmer Shutoff** – For warmer equipped units the control may be programmed to shut off the warmers after a programmed period of time. The time interval may be set for any period of time up to 4hours and 15 minutes or the feature may be turned off so that warmers operate manually.

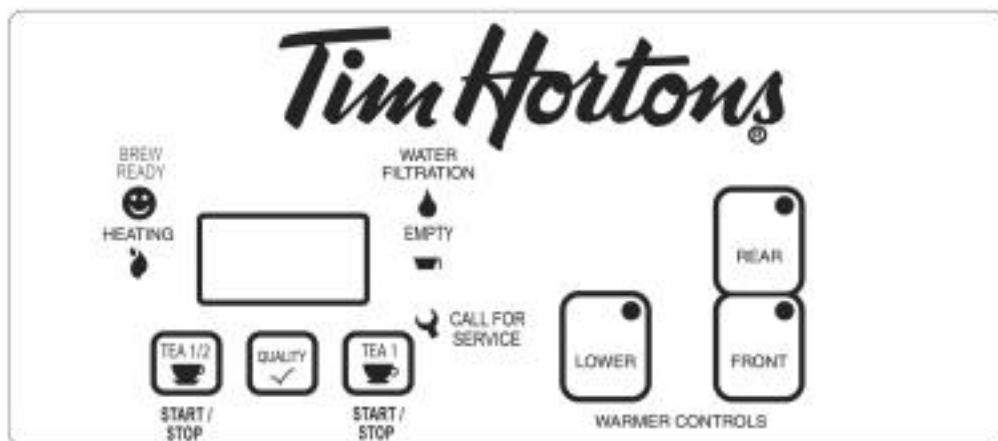
**Power Mode** - allows you to automatically save energy when the brewer is not in use for a length of time specified under power shutdown time. Available modes are normal, power save (standby) and power down. The modes are described below.

- Normal - In this mode the tank temperature will be maintained at the preset temperature at all times.
- Power Save (Standby) - In this mode the tank temperature will be maintained at approximately 170 degrees when the set time has been reached.
- Power Down - In this mode the tank heater element will be disabled when the set time has been reached.

By depressing the brew start switch or if the brewer loses power the timer is reinitialized and the set time frame starts over. In standby and power down modes the auto arm feature, if enabled, will bring the tank up to the preset temperature before brewing when the brew switch is depressed.

**Power Shutdown Time** – This feature is used to set a specified length of time ranging from 30 to 240 minutes before the standby or power down modes will take effect.

## CONTROL PANEL LAYOUT TEA Brewer Control Panel – Warmer Model



## PROGRAMMING

### SEQUENCE OF PROGRAMMING STEPS FOR THE DIGI-BREW CONTROLLER

- \* Depress and hold QUALITY button until display lights up (Approx. 10 seconds).
- \* You are now in the Program Mode. Functions to be programmed appear in the order in which they are shown in the following table.
- \* Use the QUALITY button to cycle through the functions to find the one you wish to change.
- \* Use the TEA1/2 button to lower the displayed value and the TEA 1 button to raise the value. Press QUALITY button to store the changed value and advance to next function.
- \* If the Brewer detects no activity for approx. 60 seconds it will exit the Program Mode, except as noted below.

CODE	FUNCTION TO SET	SET VALUE OPTIONS	TEA BREWER
1A	Brew 1 volume (Left Button)	OFF, 30 – 255 ounces	30 ounces
1b	Brew 2 volume (Right Button)	OFF, 30 – 255 ounces	60 ounces
2	Visa-brew time	OFF, 30 seconds – 2 ½ minutes	1:45
3	Water Temperature *1	170 °F – 205° F	203 Degrees F
4	Auto Arm	ON or OFF	On
5A	Pre-infusion 1 mode	ON or OFF	Off
5b	Pre-infusion 2 mode	ON or OFF	Off
6	Pulse brew mode	ON or OFF	On
6A	Pulse brew 1 time *2		1:15
6b	Pulse brew 2 time *3		3:15
7A	Audible alert mode	ON or OFF	On
7b	Audible alert no. of beeps	ON,OFF, 1 – 9	On(Continuous)
9A	Filtering flow rate	OFF, 0.25 – 1.00 gal. / min	.25 GPM
9b	Filter capacity *4	OFF, 0.50 – 2.50 gal. X 100 2000	gallons
10	Number of Brews	ON or OFF, Clr	N/A
11A	Auto Warmer Shutoff	ON or OFF	Off
11b	Time Interval before shutoff	0-4:15	N/A
12A	Power mode	Normal, Power Save, Power Down	Normal
12b	Power shutdown time *5	30 minutes – 4 hours	N/A
End	None *6	N/A	N/A

- \*1 Brewer will remain in this sequence indefinitely until CANCEL button is pressed.
- \*2 Hidden if pulse brew mode is OFF or brew 1 time is OFF.
- \*3 Hidden if pulse brew mode is OFF or brew 2 time is OFF.
- \*4 Hidden if filter flow rate is OFF.
- \*5 Hidden when power save mode is normal.
- \*6 Program mode will time out in 15 seconds at end of programming sequence.

### ERROR MESSAGES

The following table explains the error messages which may be encountered on the brewer. The error messages may be cleared by going into the program mode, using the brew buttons to display "Clr" and then pressing the cancel button.

ERRORMESSAGE	DESCRIPTION	CAUSE
Er1	Fill run error	The fill solenoid has either run for more than six minutes on the initial tank fill or 3 minutes in normal operation.
Er2	Heater run error	The tank heater has run for more than 30 consecutive minutes.
Er3	Shorted probe	Short in the thermistor circuit.
Er4	Open probe	Break in the thermistor circuit.
Ful	Filter limit reached	The selected filtering capacity of the filter has been reached

## PDS VALVE CALIBRATION

The PDS valve is a flow control valve that is accurate over a wide range of water pressures and will maintain its volume setting for many years within the harsh water environment that commercial brewing equipment must operate. The valve is adjustable from 0.04 GPM to 0.31 GPM. Other features designed into the valve include an internal water strainer, an easy to adjust knob for setting the flow rate, double O-ring swivel fittings to eliminate leaks due to equipment being moved, and a porcelain sleeve and piston assembly that is self cleaning and cannot be affected by chemicals within the water supply. The system has been designed to operate over a wide range of water pressures, from 10 PSI to 70 PSI with an accuracy of +/-1%. An additional benefit of the PDS valve is reduced noise level over brewers equipped with conventional flow controls during the brewing process.

The flow control setting of the PDS valve works in conjunction with the volume setting programmed into the brewer to determine the volume of water being delivered during the brew cycle. For accurate brew volumes the flow control rate of the PDS valve must be set to a rate of .25 gallons (32 ounces) per minute. This may be easily done by following one of the procedures outlined below.

### Method One – Off Brewer Calibration

- 1) Connect a water line which can be turned off and on to the PDS valve inlet fitting.
- 2) Direct the outlet fitting into a graduated container so as to be able to measure the volume delivered.
- 3) Simultaneously turn on the water supply and begin timing for a specified period of time such as 30 seconds or 1 minute.
- 4) Check the volume of water delivered. Desired volumes are 16 ounces for a 30 second time frame and 32 ounces for a one minute time frame.
- 5) Make adjustments as designated by the label on the PDS valve to increase or decrease the volume as indicated by the previous step.

### Method Two – On Brewer Calibration

- 1) Remove brewer top cover.
- 2) Attach a flexible tube (recommended ¼" ID silicone) to the delivery tube in the receiving pan and direct other end into a graduated container.
- 3) Depress the TEA 1 /2 button to begin a brew cycle.
- 4) The volume delivered into the container should equal the preset volume, 30 ounces.
- 5) Make adjustments as designated by the label on the PDS valve to increase or decrease the volume as indicated by the previous step.

### Method Three – On Brewer Calibration, Alternate

- 1) Run a normal brew cycle without tea in the basket and measure volume delivered
- 2) Make adjustments as designated by the label on the PDS valve to increase or decrease the volume as indicated by the previous step to obtain desired volume.

Note: This method requires more time than other methods since water must run through entire system and drain from brewbasket before a second cycle to verify adjustments can be run. Use of a suitably sized funnel placed in decanter may speed the process due to slow drain time of tea basket.

## WARRANTY

Newco coffee brewers are warranted against defects in workmanship or materials, under normal use, for 90 days from the date of purchase. Brewer parts are warranted against defect for 12 months from date of purchase. Liability in all events is limited to the purchase price paid and liability under the aforesaid warranty is limited to replacing or repairing any part or parts which are defective in material or workmanship, and returned to our factory, shipping cost prepaid. No warranty expressed or implied other than the aforesaid is made or authorized by Newco Enterprises, Inc. Prompt disposition will be made if item proves to be defective, within warranty. Before returning any item, write or call Newco, or the dealer from whom the product was purchased, giving model number, serial number, and date of purchase, and describe nature of the defect. If damage was incurred during transit to you, file claim with the carrier.

**Parts List for AKPA-DBT3 HW (Tea function)****Electrical Components**

119895 Faceplate Ass'y With Boards, AKPA-3 DB-T HW  
 119924 Faceplate Ass'y Without Boards, AKPA-3 DB-T HW  
 120610 Main Control Board, DB-T TH  
 120305 Warmer Control Board, DB  
 202027 Tank Element, 3500 W 240 V  
 701305 Manual Reset Thermostat (GK)  
 100010 Warmer Plate Assembly, Black  
 100187 Warmer Element, 100 W 120 V  
 105115 Transformer, 120 V Pri, 16 V CT 40 VA Sec  
 110367-10 Solid State Relay, 50 A  
 121659 Heatsink, Relay  
 511053 Terminal Block  
 511054 Cable Connector, Power Cord  
 120804 Terminal Insulation, SIL 1/4 ID x 3/8 OD 1-5/8

**Plumbing and Tank Parts**

102376 S/S Brew Basket, Small Tea, Red Handle  
 111852 PDS Ass'y, Low Flow, Flare/Plug  
 111223 Sprayhead, RD Siphon  
 201173 Sprayhead Nut, S/S 7/16-20  
 120809 Tube Ass'y, Valve to Pan  
 119902 Receiving Pan, AKP DB  
 701147 Gasket, Receiving Pan  
 119850 Fill Valve Assembly  
 100250 Solenoid Valve, Skinner  
 151590 Power Cord Assembly  
 121642 Tank Assembly, AKPA, DB  
 100025 Sprayhead Gasket  
 101726 Sprayhead Tube Assembly  
 119853 Tank Lid Assembly, AKPAHW [see p. 21]  
 102836 Grommet, SIL No Slit  
 704119 Tank Only, K Style  
 704221 Tank Gasket, Silicone  
 781555 Gasket, Siphon Hub/Delivery Tube

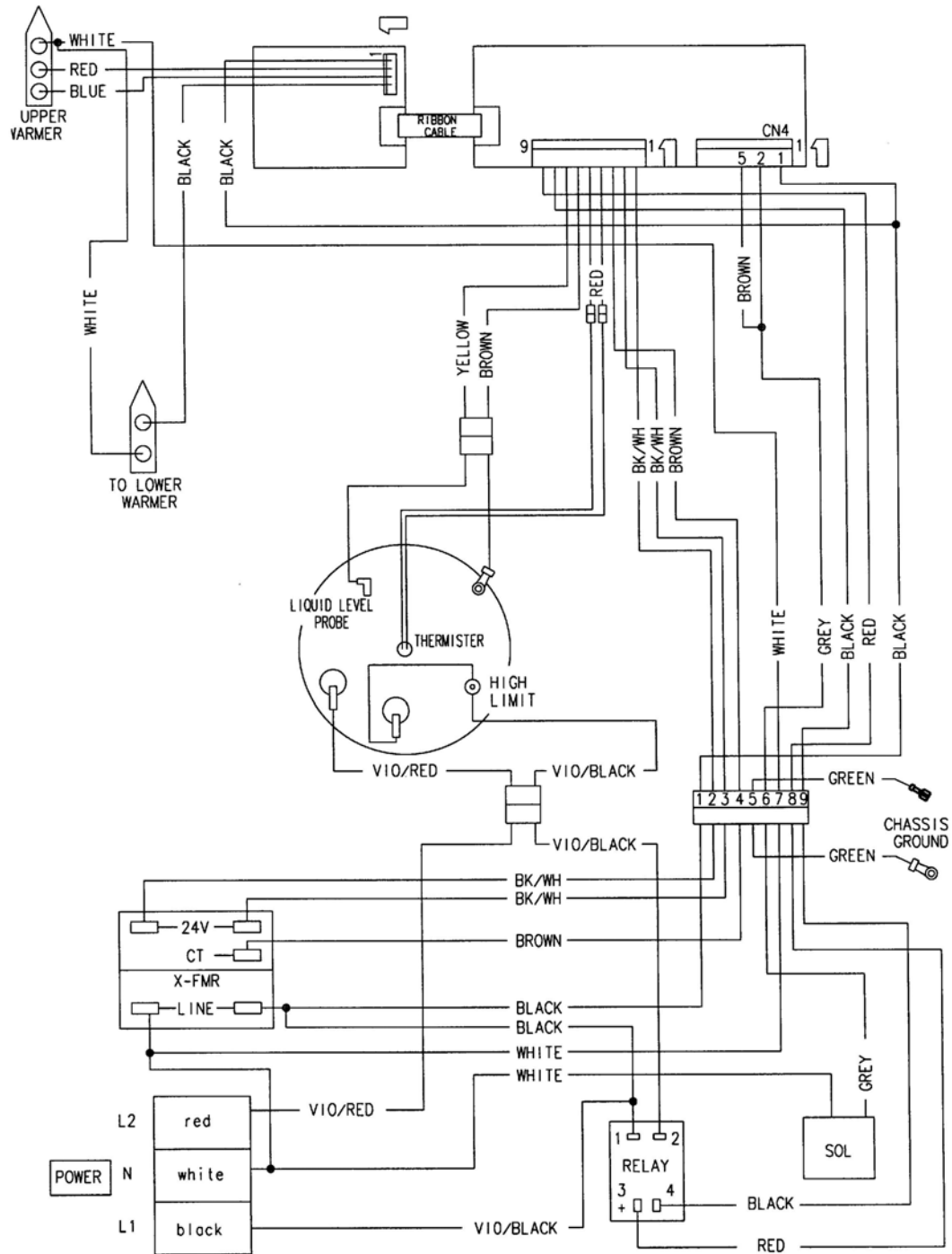
**Cabinet Parts and Assemblies**

119911 3 Station Cover Assembly, AKP  
 110625 Pour-In Grid and Cover Assembly  
 110624 Pour-In Cover Only, Black  
 119897 1 Station Base Assembly, AKP  
 119896 Back Component Panel Assembly, AKPA DB  
 120808 Warmer Guard, Cover  
 121636 Brew Rail, RH, AKP  
 121637 Brew Rail, LH, AKP  
 100008 Warmer Plate Only, Black

**Hardware and Miscellaneous**

111377 Appliance Foot, 3/8-16 X 1  
 111326 Spacer, Heavy Foot  
 100212 Lock Washer, #6 External Tooth, S/S  
 100253 Decal "Caution: Hot Surfaces"  
     100054 Lock Washer, #8 External Tooth, S/S  
 100104 Lock Washer, 3/8 External Tooth, ZPS  
 511046 Lock Washer, 7/16 Internal Tooth, S/S  
 110941 Washer, .151 X .345 X .031 Nylon  
 100243 Nut, 4-40 S/S Hex  
 100191 Nut, 6-32 S/S Hex  
 100061 Nut, 8-32 S/S Hex  
 111667 Nut, 3/8-16 ZPS Jam  
 511023 Nut, 7/16-20 Brass Hex  
 100190 Nut, 1/2-20 Brass Jam, (Tank Element)  
 100160 Screw, 4-40 x 5/8, S/S SPHMS  
 105310 Screw, 6-32 x 1/4, Black Undercut Flathead  
 102333 Screw, 6-32 x 3/8, S/S Combo Head  
 120024 Screw, 6-32 x 3/4, S/S SPHMS  
 100242 Screw, 8-32 x 1/4, S/S SPHMS  
 511027 Screw, 8-32 x 3/8, S/S SPHMS

### TEA BREWER FUNCTION WIRING DIAGRAM



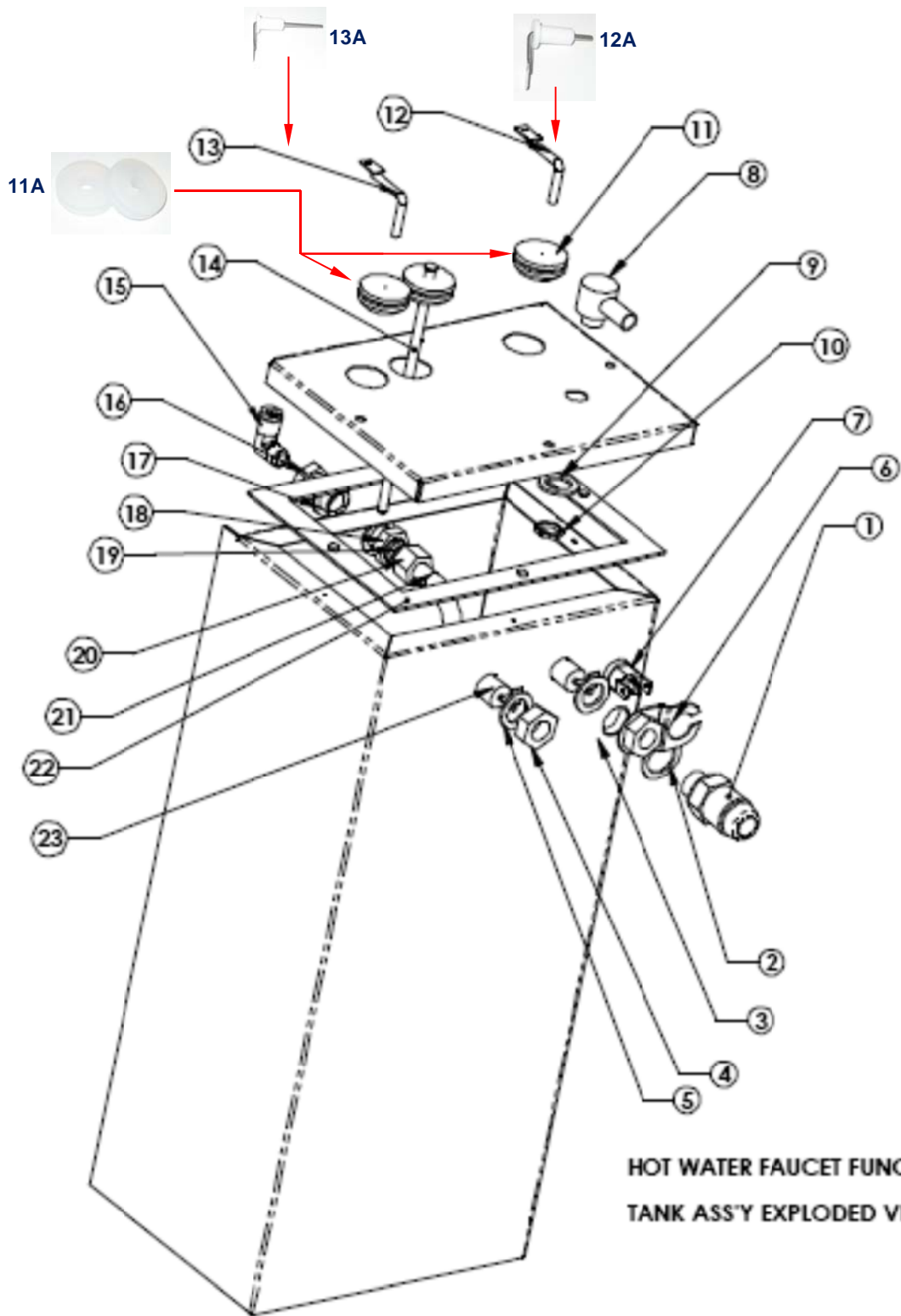
## INSTRUCTION SHEET FOR AKPA-HW HOT WATER FAUCET FUNCTION

Follow the installation instructions using the main manual. Be sure proper waterline is connected to the brewer and the water is turned on. **Also, be sure when plugging in the unit that it is connected to the proper size, voltage and amperage receptacle.** When ready to fill the rear hot water tank use the following instructions:

- On the rear of the unit turn the UPPER on-off switch to the ON position. The water will immediately start to fill the tank.
- The water will continue to fill the tank until it reaches the lower probe (approximately 2 minutes). At this time the water level in the tank is too low to draw any water from the hot water faucet. Also at this time the thermistor will activate the tank element and will heat for approximately 10 minutes 30 seconds.
- When the water temperature reaches within 5 degrees of the set point (205F, 96C) the water will again fill the tank until the water level reaches the upper probe. The tank element will be reactivated and will continue to heat for approximately 5 minutes. Water can now be drawn from the hot water faucet.
- The temperature is factory set at 205F, 96C. The temperature can be adjusted by turning the gray adjustment knob on the hot water dispenser board in the direction of the plus or minus (+ OR -) as indicated on the label above the knob. The maximum temperature is 210F, 99C.

The hot water tank portion of the brewer is now ready for use.

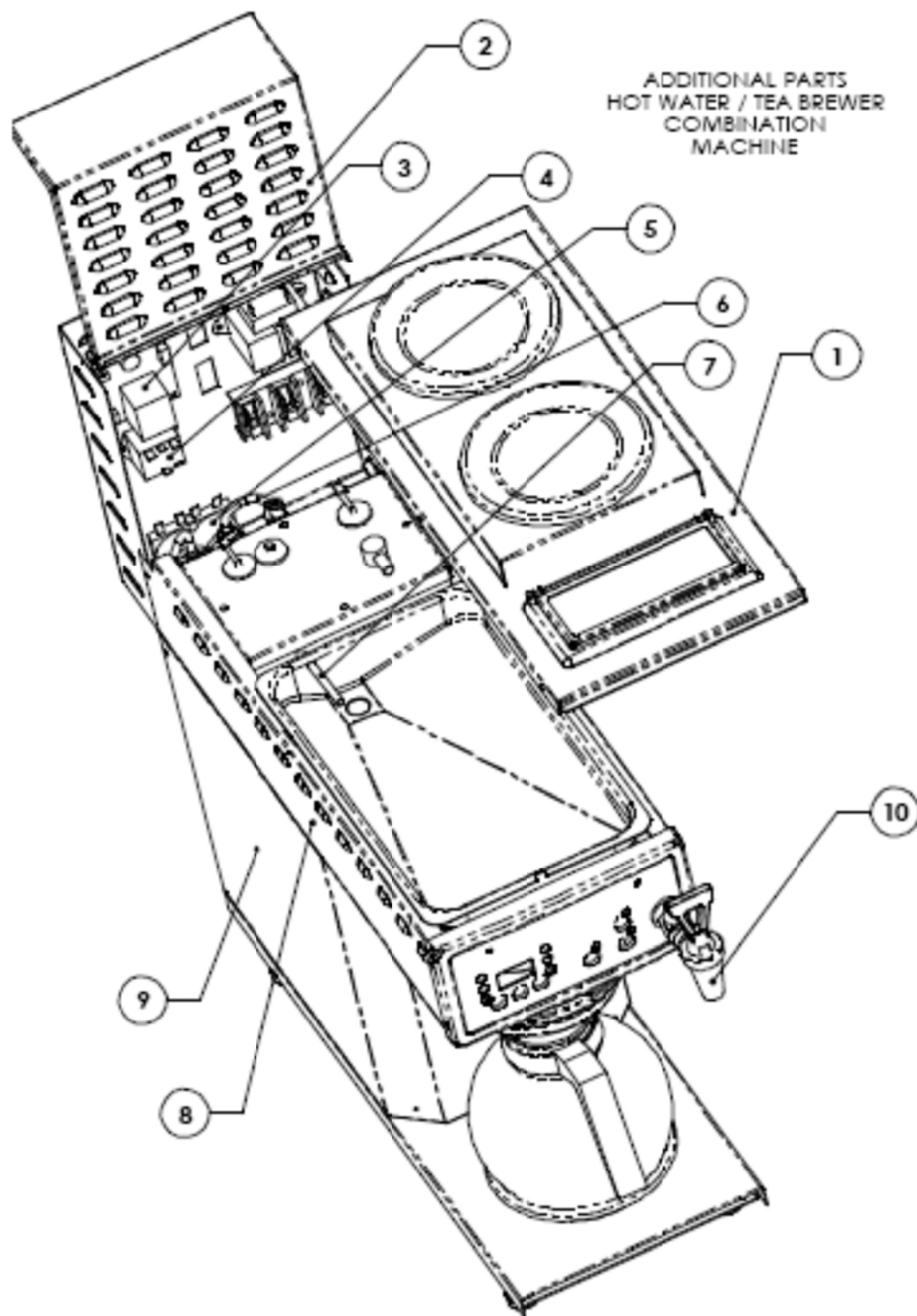
**The following pages pertain to the HOT WATER FAUCET FUNCTION of the machine.**



## PARTS LIST-HOT WATER TANK ASSY

ITEM #	PART #	DESCRIPTION	QTY
1	781468	FITTING, FAUCET	1
2	800244	GASKET, NYLON-.671 X .937 X .062	1
3	119879	NUT,FAUCET,3/8-18, CHROME PLATED	1
4	100190	NUT, ½-20, JAM, BRASS	2
5	100409	GASKET, BRASS .520ID, TIN PLATE	3
6	100269	BRACKET, HIGH LIMIT THERMOSTAT	1
7	111593	THERMOSTAT, MANUAL RESET	1
8	110978	TUBE-ASSY, SPRAYHEAD, PC	2
9	100025	GASKET, SPRAYHEAD (SILICONE)	1
10	201173	NUT, SPRAYHEAD 7/16-20 SS	1
11	102836	GROMMET, SILICONE, NO SPLIT [Thermistor]	1
11A	500350	GROMMET, NEW WATER PROBE [500403 & 500404]**	2
12	119891	PROBE-SPOTWELDED [SHORT] 2.375 [SHRINK] (ORIGINAL)	1
12A	500404	PROBE ASSEMBLY 90 X 1.450" X .880" [SHORT]** (NEW)	1
13	119890	PROBE-SPOTWELDED [LONG] 3.25 [SHRINK] (ORIGINAL)	1
13A	500403	PROBE ASSEMBLY 90 X 2.32" X .880" [LONG]** (NEW)	1
<b>**UPDATED GROMMET &amp; WATER PROBE ASSEMBLIES CURRENTLY BEING USED.</b>			
14	151800	PROBE ASSY, THERMISTOR, C98	1
15	100149	ELBOW- ¼ COMP X 1/8 NPT	1
16	102831	CONNECTOR, FEMALE 3/8 COMP X 1/8 FEMALE PIPE	2
17	100030	GASKET, BRASS .566 ID TINPLATED	3
18	100431	NUT, BRASS 9/16-24 , TIN PLATED	1
19	100166	SLEEVE, 3/8 COMP BRASS	1
20	100170	NUT, 3/8 COMP BRASS	1
21	119886	TUBE, 3/8" SS INLET 14"	1
22	119882	GASKET-TANK .062 SILICONE FDA	1
23	111727-10	ELEMENT, MAIN 2000W 240V	1

Item #	ITEMS NOT PICTURED	Qty
102119	INSULATED SLEEVE (RIGHT ANGLE)	2
100065	SCREWS (LID TO TANK)	4
119856	14 GA V/BLK WIRE	1
119880	SILICON, 15" (FAUCET TUBE)	1
119885	TUBE, FILL	1

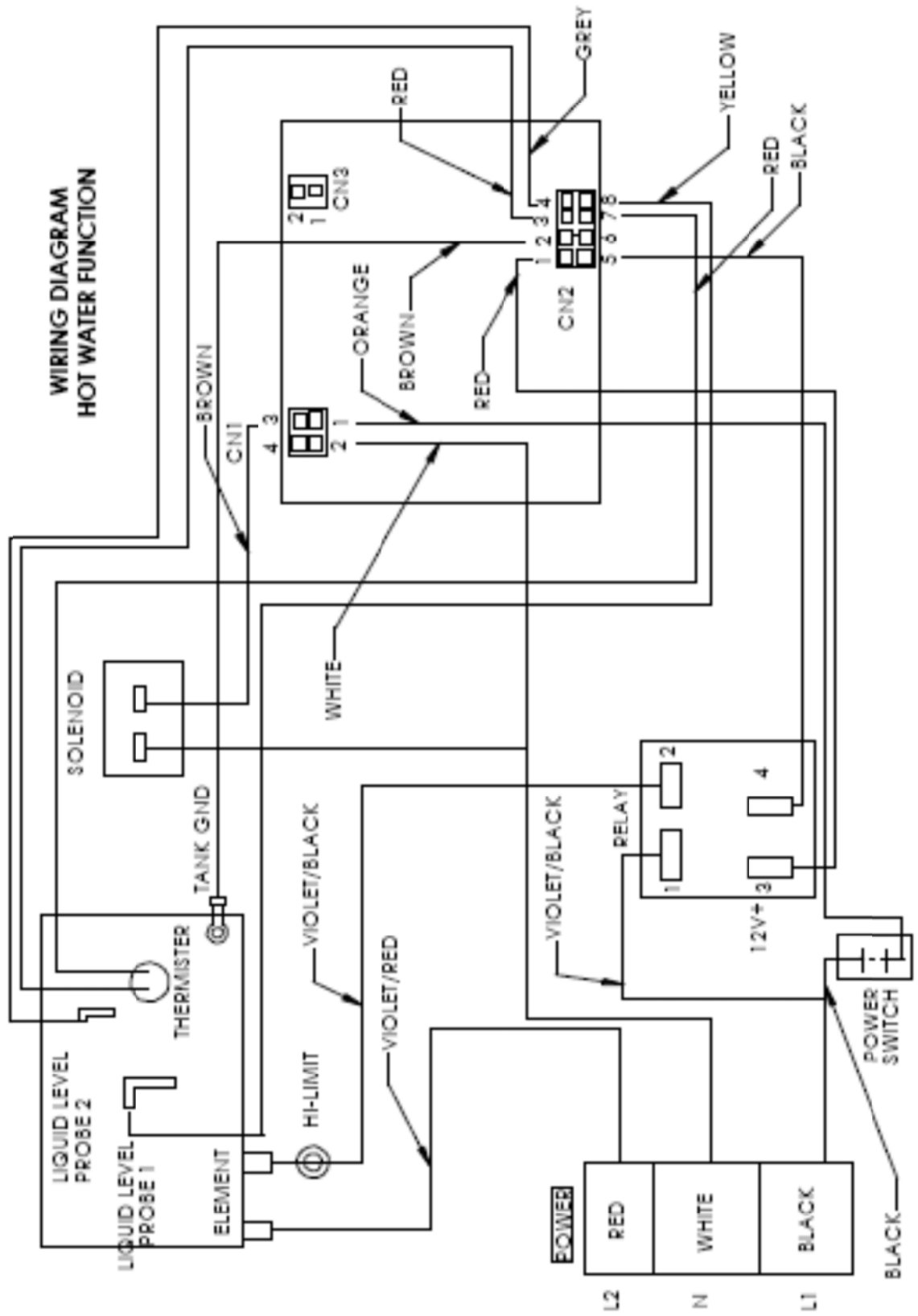


**PARTS LIST-HOT WATER/ TEA MISC.**

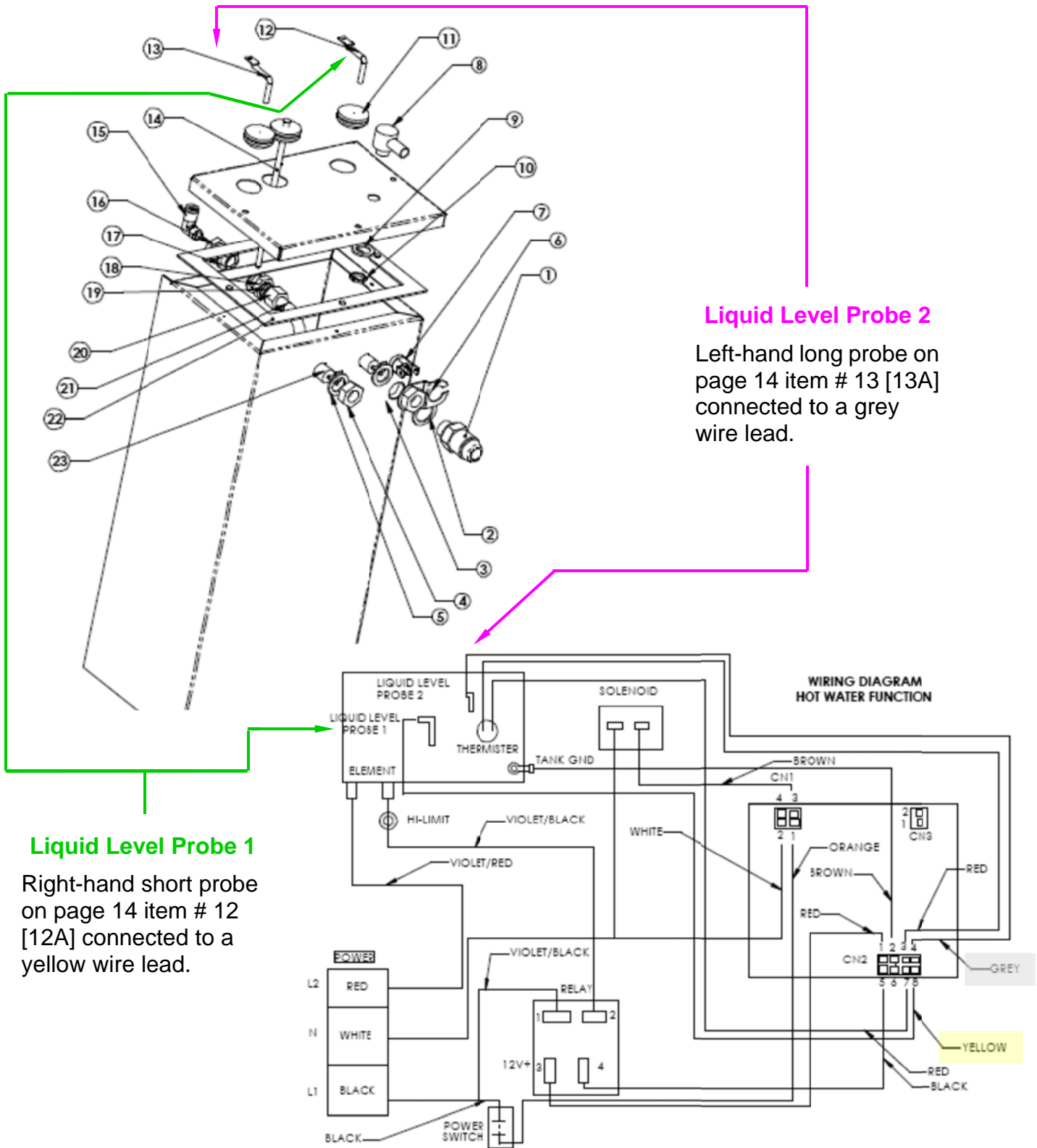
ITEM #	PART #	DESCRIPTION	QTY
1	119911	COVER ASSY, AKPA,HW	1
2	119904	COVER,REAR, AKPA, HW	1
3	111719	BOARD, HOT WATER DISPENSE	1
4	110958	RELAY, 12V DC, SPST, 30 AMP	1
5	120805	VALVE, ASSY, AKPA	2
6	119894	ASSY, TUBE, INLET, HW, ¼ COPPER	1
7	119889	ASSY, TUBE, DISCHARGE, AKPAHW	1
8	119909	WRAPPER, LH	1
	119897	ASSY, SPOTWELD, WRAPPER RH	1
9	119907	COLUMN, AKPAHW	1
10	121263	FAUCET, TH HOT WATER	1

## HOT WATER FAUCET TROUBLESHOOTING GUIDE

PROBLEM	PROBABLE CAUSE	REMEDY
1. No Water	a.) Water turned off b.) Water line not connected c.) Faulty water inlet valve	a.) Turn on – open shutoff valve b.) Ensure water line is connected c.) Check valve and connections – replace if necessary
2. Water Not Hot	a.) Temperature setting too low b.) Heater overload tripped c.) Defective heater element d.) Defective thermistor	a.) Adjust temperature setting (+) b.) Reset hi-limit thermostat c.) Replace heater element d.) Replace thermistor
3. Water Does Not Shut Off	a.) Liquid level probe malfunction b.) Faulty water inlet valve	a.) Check probe connections b.) Check valve and connections – replace if necessary
4.) Water Boiling	a.) Temperature setting too high b.) Malfunctioning thermistor	a.) Adjust temperature setting (-) b.) Replace thermistor



Identifying the water probes on the brewer's tank lid assembly on page 14 to the hot water wiring diagram on page 19.



**Liquid Level Probe 2**

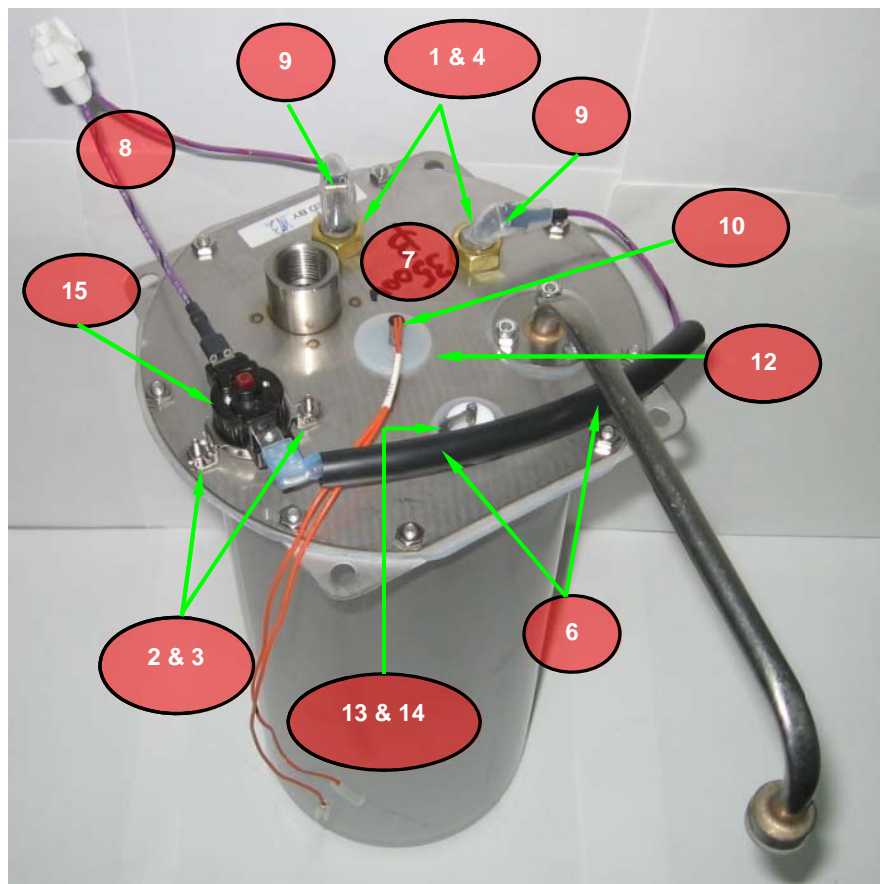
Left-hand long probe on page 14 item # 13 [13A] connected to a grey wire lead.

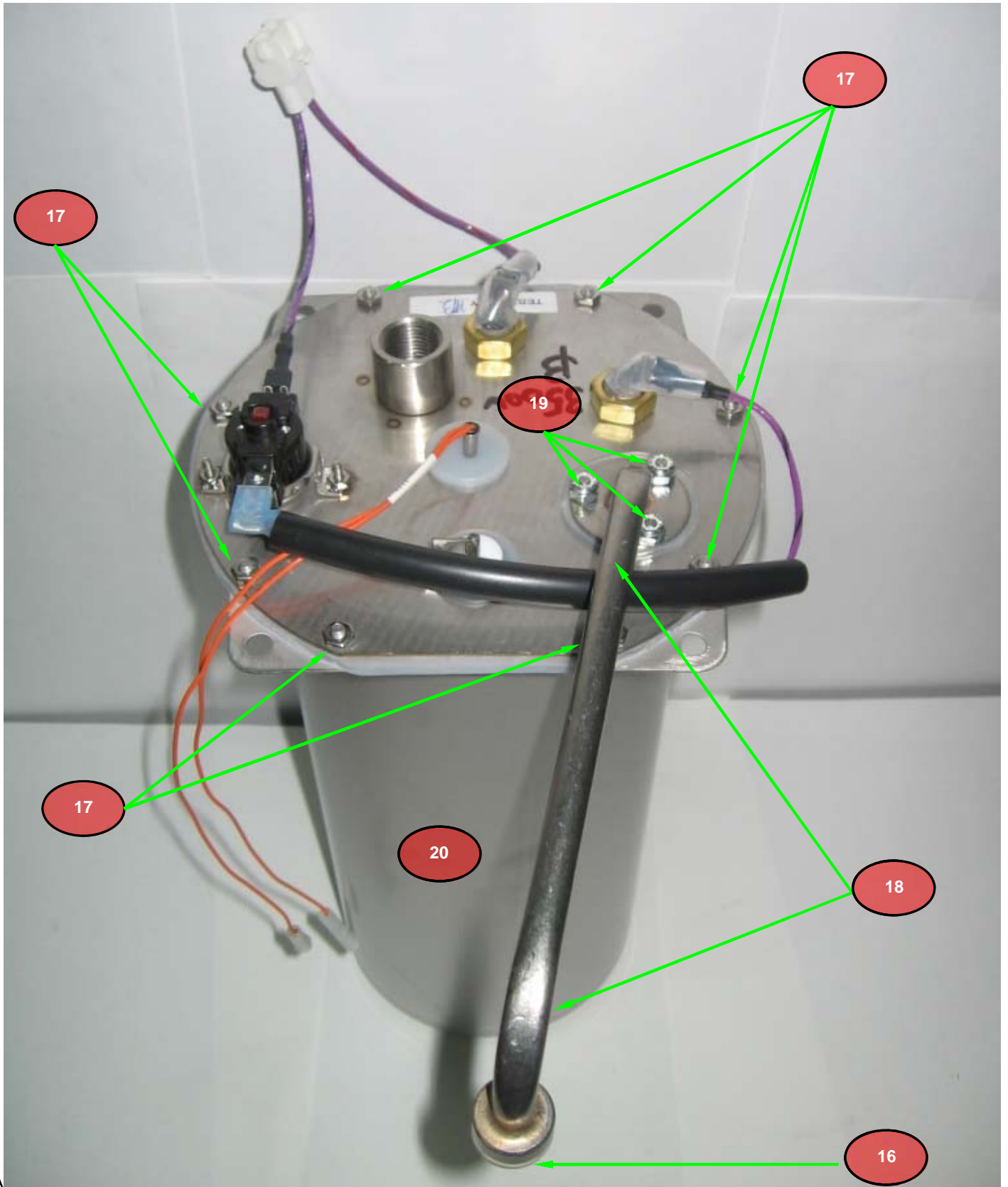
**Liquid Level Probe 1**

Right-hand short probe on page 14 item # 12 [12A] connected to a yellow wire lead.

## TANK LID ASSEMBLY AKPA DBT-3 HW 3500W [119853]

ITEM #	PART #	DESCRIPTION	QTY
1	100190	Jam Nut, 1/2-20 Brass	2
2	100212	#6 Lock Washer, External Tooth SS	2
3	100243	Nut, 4-40 Hex SS	2
4	100409	Gasket, Brass .520 ID Tin Plated	2
5	100567	PVC Tube, 3/8" x 7500" 2 Pcs. Cut to 4.5" & 7.5" [Not Shown]	12"
6	103016	Lead Wire, 14 GA Violet-Black 10" Teflon 1S-2N	1
7	119854	Lid Only, Spot Welded AKPA-HW 3500W	1
8	119865	Wire Harness, Quick Disconnect Tank-Element AKPAHW	1
9	120804	Silicone Tube, 1/4" ID x 3/8" OD x 1 5/8"	2
10	151800	Temperature Probe Assembly 5.75" C98	1
11	202027-10	Heating Element 3500W 120V [Not Shown]	1
12	500038	Silicone Grommet, No Slit .060"	1
13	500350	Silicone Grommet, Water Probe With Bushing	1
14	500396	Probe Assembly, 1.537" With Bushing	1
15	701305	Manual Reset Safety Thermostat, 215F 25A	1
<b>Miscellaneous Tank Assembly Parts [119852]</b>			
16	100025	Gasket, Spray Head	1
17	100061	Nut, 8-32 Hex SS	11
18	101726	Spray Head Tube Assembly, AKLD	1
19	107240	Nut, 8-32 With Nylon Insert	3
20	704119	Tank Only, K Series	1
21	704221	Silicone Gasket, Tank [Not shown]	1
22	781555	Silicone Gasket, Delivery/Siphon [Not Shown]	1





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