

# SINGLE SERVING AUTOMATIC POD MACHINE

## FKP-4

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### Features/ Specifications

- **AUTOMATIC POD REMOVAL**
  - **FLOWMETER**
  - **20 OZ TRAVEL MUG**
- **LARGE POD WASTE TRAY / THRU COUNTER OPTION**
  - **ADJUSTABLE DRINK STRENGTH**
  - **ADJUSTABLE DRINK VOLUME**

**LEFT BLANK INTENTIONALLY**

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# SPECIFICATIONS

## TANK WATTAGES

US 1700W 120V- CANADA 1400W 120V- INTERNATIONAL 1700W 220V

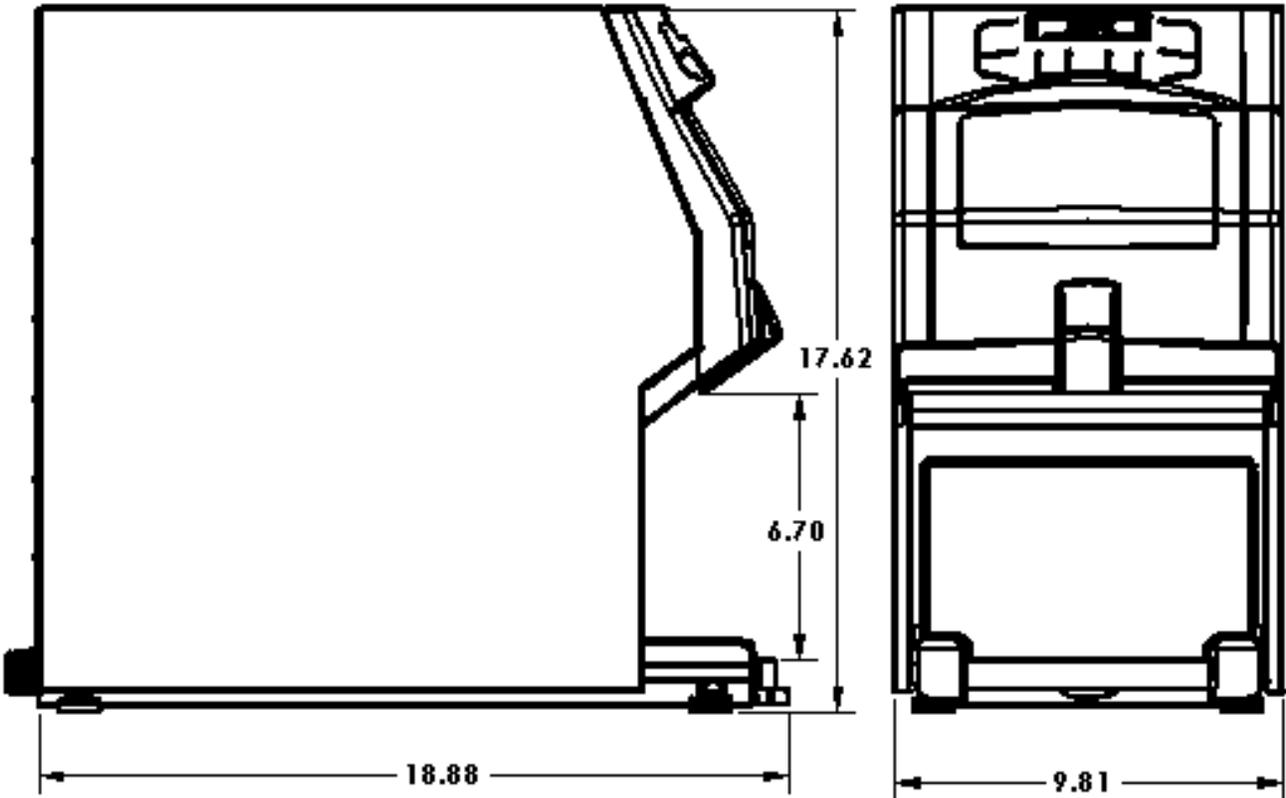
TANK CAPACITY-1 US GALLON

DRIP TRAY CAPACITY 8 OUNCES

POD WASTE TRAY CAPACITY 40 PODS

USE WASTE TRAY PN 780306 FOR THRU-COUNTER USE

UP TO 20 OZ CUP SIZE



SHIPPING WT-APPROX 35 LBS

# **WARRANTY**

**Applies to all equipment manufactured after 2/1/2017. This warranty supersedes all other previous warranties that are currently in manuals.**

**Newco warrants equipment manufactured by it for 1 year parts and labor.**

**Accessories and Dispensers 1 Year parts only.**

**Electronic Circuit and Control Boards- 3 years parts, 1 year labor.**

**Equipment manufactured by others and distributed by Newco- please see original equipment manufacturers warranty, Newco will follow.**

These warranty periods run from the date of sale Newco warrants that the equipment manufactured by it will be commercially free of defects in material and workmanship existing at the time of manufacture and appearing within the applicable warranty period. This warranty does not apply to any equipment, component or part that was not manufactured by Newco or that, in Newco's judgment, has been affected by misuse, neglect, alteration, improper installation or operation, relocation or reinstallation, improper maintenance or repair, incorrect voltage applied to the unit at any time, damage or casualty. This warranty does not apply to any equipment failures related to poor water quality, excessive lime and chlorine and non periodic cleaning and descaling. Warranty is null and void if muriatic or any other form of hydrochloric acid is used for cleaning or deliming. In addition, this warranty does not apply to replacement of items subject to normal use including but not limited to user replaceable parts such as faucet seat cups, sight gauge tubes, washers, o-rings, tubing, seals and gaskets.

This warranty is conditioned on the Buyer 1) giving Newco prompt notice of any claim to be made under this warranty by telephone at (800) 556-3926 or by writing to **3650 New Town Blvd, Saint Charles, MO 63301**; 2) if requested by Newco, shipping the defective equipment prepaid to an authorized Newco service location; and 3) receiving prior authorization from Newco that the defective equipment is under warranty.

**THE FOREGOING WARRANTY IS EXCLUSIVE AND IS IN LIEU OF ANY OTHER WARRANTY, WRITTEN OR ORAL, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF EITHER MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.** The agents, dealers or employees of Newco are not authorized to make modifications to this warranty or to make additional warranties that are binding on Newco. Accordingly, statements by such individuals, whether oral or written, do not constitute warranties and should not be relied upon.

If Newco determines in its sole discretion that the equipment does not conform to the warranty, Newco, at its exclusive option while the equipment is under warranty, shall either 1) provide at no charge replacement parts and/or labor (during the applicable parts and labor warranty periods specified above) to repair the defective components, provided that this repair is done by a Newco Authorized Service Representative; or 2) shall replace the equipment or refund the purchase price for the equipment.

**THE BUYER'S REMEDY AGAINST NEWCO FOR THE BREACH OF ANY OBLIGATION ARISING OUT OF THE SALE OF THIS EQUIPMENT, WHETHER DERIVED FROM WARRANTY OR OTHERWISE, SHALL BE LIMITED, AT NEWCO'S SOLE OPTION AS SPECIFIED HEREIN, TO REPAIR, REPLACEMENT OR REFUND.**

In no event shall Newco be liable for any other damage or loss, including, but not limited to, lost profits, lost sales, loss of use of equipment, claims of Buyer's customers, cost of capital, cost of down time, cost of substitute equipment, facilities or services, or any other special, incidental or consequential damages.

# MACHINE SET-UP

**NOTE: The FRESH CUP machine weighs approximately 35 LBS. Use CAUTION when unpacking and lifting machine. LIFT MACHINE FROM MACHINE BOTTOM ONLY. DO NOT MOVE MACHINE UNLESS THE HOT WATER TANK IS DRAINED AND EMPTY.**

1. Open and install the drip tray grill and place drip tray into waste bin.
2. Connect water fitting with strainer on the rear of machine next to the power switch.

## Plumber's Installation Instructions

- 1) Brewer must be installed to comply with all applicable federal, state and local plumbing codes and ordinances.
- 2) Plumb brewer in to water supply using 1/4 inch copper tubing. Flush water line before installing brewer to remove sediment. Brewer should be connected to COLD WATER LINE for best operation.
- 3) Water pressure should be at least 20 lbs. For less than a 25 ft run, use 1/4" tubing and connect to 1/2" or larger water line. The inlet water fitting on the back of the brewer is a 1/4" flare fitting. It may be necessary to remove the plumbing cover box on the rear of brewer to access water connection point.
- 4) If installed with saddle valve, the valve should have a minimum of 1/8" porthole for up to 25 ft run, and 5/16" porthole for over 25 ft runs.
- 5) Turn on water supply and check for leaks.

**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 serial tag.

Turn the power switch to the "OFF " position and plug the machine into a properly installed and grounded electrical circuit. Turn on power switch to start the initial WATER FILL CYCLE.

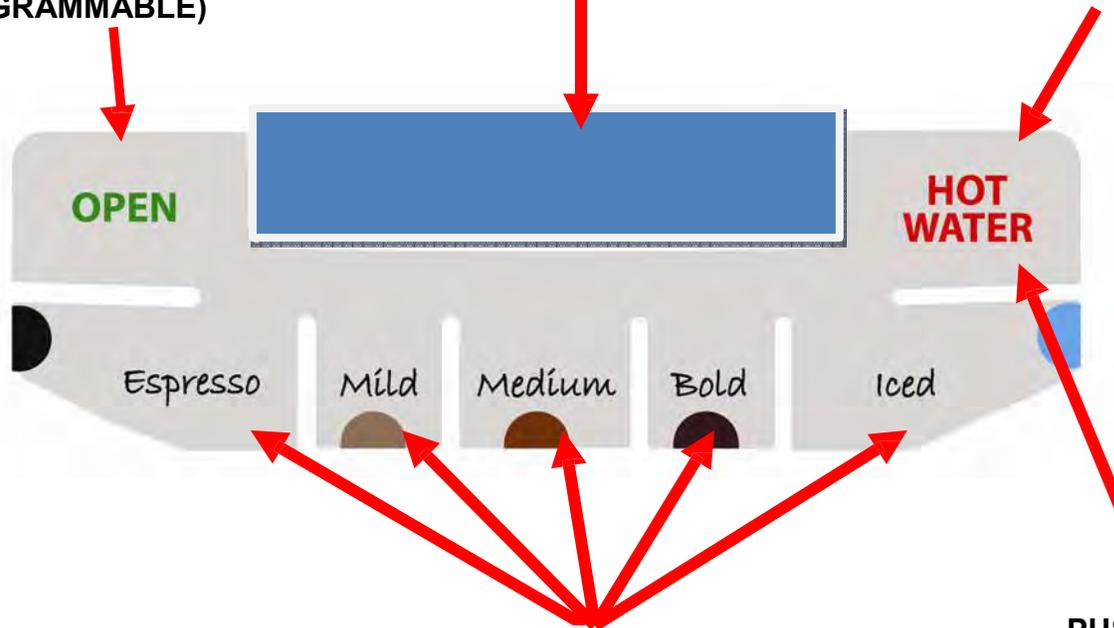
When tank is filled, the heater circuit will turn on-allow up to 20 min for the tank to reach brewing temperature. Machine is now ready for programming or operation.

# MACHINE OPERATION

**DRAWER OPEN  
BUTTON  
(ALSO  
PROGRAMMABLE)**

**BREWER MESSAGE DISPLAY**

**PUSH & HOLD FOR HOT  
WATER DISPENSE WHEN  
DRAWER IS CLOSED**



**PROGRAMMABLE  
BREW BUTTONS (CUP  
STRENGTH OR CUP  
SIZE, TEA, ETC)**

**PUSH TO  
RETURN BREW  
MECHANISM TO  
HOME POSITION  
WHEN DRAWER  
IS OPEN**

- TEMPERATURE RANGE IS 180-203 DEGREES
- POWER SAVE OR POWER DOWN FEATURE AVAILABLE
- BEEPER VOLUME CAN BE ADJUSTED OR BEEPER CAN BE SHUT OFF
- AIR PUMP POD DRYING TIME & PUMP STRENGTH CAN BE ADJUSTED
- POD COUNT TO EMPTY POD WASTE BIN ADJUSTABLE OR CAN BE TURNED OFF IF USING THROUGH THE COUNTER WASTE BIN
- COFFEE OR TEA PRE-INFUSION, BREW TIME & BREW VOLUME ADJUSTABLE FOR EACH OF 6 CUSTOMIZABLE DISPENSE BUTTONS

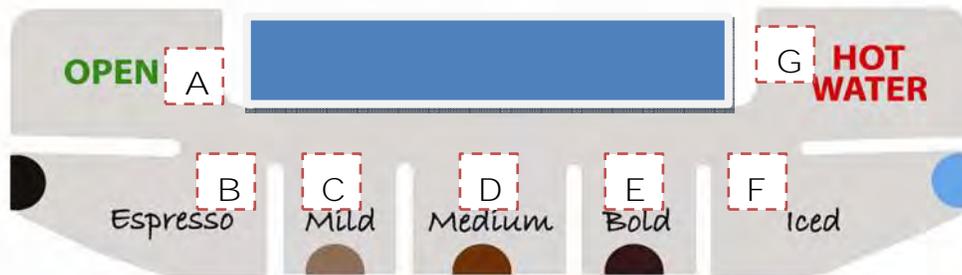
## BREW OPERATION

1. PLACE CUP UNDER BREW NOZZLE ON DRIP TRAY
2. PRESS THE DRAWER OPEN BUTTON
3. UNWRAP THE POD & PLACE IN CENTER OF BREW CHAMBER
4. PRESS THE DESIRED BREW BUTTON-CHAMBER WILL CLOSE & BREW CYCLE WILL START
5. ONCE THE POD DRYING CYCLE IS COMPLETE, THE POD WILL EJECT & THE CUP CAN BE REMOVED

# MACHINE PROGRAMMING

**THESE MACHINES ARE EQUIPPED WITH A FLOWMETER-** Please run your Fresh Cup pod brewer a few times. If the volume dispensed is comparable to the amount expected from your Button Settings (which are set in the programming menu as described BELOW) and consistent and the pulsing is acting as expected **you are done**. However if your dispensed volume is larger or smaller than expected the easiest way to adjust it is to adjust the “OZ PER TICK” using the FLOWMETER ADJUST feature in the programming menu.

NOTE: THE MACHINE HAS BEEN CALIBRATED AT THE FACTORY AND HAS BEEN ADJUSTED TO BREW INTO AN 8 OUNCE CUP WITH APPROX 7 OUNCES OF COFFEE FOR BREW STRENGTHS OF MILD, REGULAR AND BOLD. NO FURTHER ADJUSTMENTS ARE NECESSARY IF THE FACTORY DEFAULTS ARE USED.



**Fig 1: Fresh Cup Keys**

The Fresh Cup pod brewer has a menu that consist of scrolling menu entries that can be scanned through backward and forward using button A and button B (see Fig 1). To enter a programming record, press and hold the Hot Water Key (G) when powering up machine (see Fig 1) then use button A and button B (see Fig 1) to change the entry. Pressing the Hot Water (G) key (see Fig 1) will exit the entry, saving the entire Parameter structure to memory upon exiting the programming menu using the END entry. There are eight entries on the Main menu and four on one sub menu, which is accessed through the **BUTTON SET UP** entry. The current entries in the Main menu are as follows:

- Set Temperature**
- Set Energy Save Mode**
- SetEnergySaveTime**
- Set Buzzer Volume**
- Set Pod Count**
- Flowmeter Adjustment**
- Recipe Settings**
- Select Water Filter**
- Exit Menu**

# MACHINE PROGRAMMING CONT'D

**Set Temperature:** In this entry the user may set the tank temperature in the range of 170 to 205 degrees Fahrenheit with the default at 200 degrees F. As with most of the entries, button A and button B (see Fig 1) will change the set point, incrementing or decrementing by one. Pressing the Hot Water key (G) (see Fig 1) will exit.

**Set Energy Save Mode:** This entry allows the user to select the Power Save mode. Use button A and button B (see Fig 1) to change the entry then press the Hot Water (G) key to exit.

Off Mode (default) –No Energy Save

Energy Save– Partial Power Save Mode. After the user selectable time out the tank temperature set point is set to 180 until a key is pressed.

Full Energy Save – Full Power Save Mode. After the user selectable time out the tank heater is disabled until a key is pressed.

**Set Energy Save Time:** This entry will not be displayed if the Power Save function has been turned off. This entry sets the time the machine will operate normally until the power save function is activated. The user can choose 1 through 4 hours in 1-hour increments with the default set to 4 hours. As with most of the entries, button A and button B (see Fig 1) will change the time, incrementing or decrementing by one. Pressing the Hot Water key (G) (see Fig 1) will exit.

**Set Buzzer Volume:** The range is from 0 to 100. The default is 20.

**Set Pod Count:** In this entry the user may set the number of pods the brewer will hold before signaling that the bin is full. The range is 10 to 100 pods, with the default at 30. Setting the pod count under 10 turns off the count so the bin full alarm will never go off. As with most of the entries button A and button B (see Fig 1) will change the Pod Count threshold, incrementing or decrementing by one. Pressing the Hot Water key (G) (see Fig 1) will exit.

# MACHINE PROGRAMMING CONT'D

**Flowmeter Adjustment:** This entry displays the value used to represent the amount of liquid for one tick of the flow meter count. Each tick adjusts the value approximately  $2/10^{\text{th}}$  of an ounce. While in this entry, pressing the A key will decrement and the B key will increment this value. This can be used to fine-tune the amount of liquid that is dispensed. The default value is 0.

**Recipe Settings:** This entry takes the user into a sub menu to program the parameters unique to each key. When this entry is accessed the display will change to SELECT BUTTON indicating that the user should press the brew key (button B, C or D, E or F (see Fig 1)) to be programmed. When a brew key is selected the display will show the first entry in the Button Set up sub menu, SET BREW VOLUME. While SELECT BUTTON is displayed the user may exit back to the Main menu by Pressing the Hot Water key (G) (see Fig 1).

With these seven entries in the BUTTON SET UP sub menu:

**SET BREW VOLUME:** This entry sets the volume in ounces for this key to dispense. The Range is from OFF to 16 ounces with the default set to 7ounces.

**SET PRE-INFUSION VOLUME:** This entry sets the time of the pre-infusion pulse of water in seconds. Range is 0 to 3.0. Default varies by drink.

**SET COFFEE PUMP SPEED:** In this entry the user may set the pump strength in the range of 10 to 100 strength with the default at 35. As with most of the entries button A and button B (see Fig 1) will change the Pump Strength, incrementing or decrementing by one. Pressing the Hot Water key (G) (see Fig 1) key will exit.

**SET AIR PUMP SPEED:** In this entry the user may set the air pump strength in the range of 30 to 100% with the default at 90. As with most of the entries button A and button B (see Fig 1) will change the Air Pump Strength, incrementing or decrementing by one. Pressing the Hot Water key (G) (see Fig 1) key will exit.

**SET AIR PUMP TIME:** In this entry the user may set the air pump time in the range of 2 to 15 seconds with the default at 10. As with most of the entries button A and button B (see Fig 1) will change the Air Pump Time, incrementing or decrementing by one. Pressing the Hot Water key (G) (see Fig 1) key will exit.

**SET BREW PULSE TIME:** This entry sets the brew time in seconds for a 7-ounce cup of coffee with on/off pulses. The range is from 0 to 30 seconds with the default varying by drink.

**EXIT:** Exit to Main Programming Menu.

**Select Water Filter:** This entry allows the user to select the filter size for the filter used on the inlet for the water. Choices include OFF, 500 GAL UP TO 3000 GAL. These set the counter for the filter warning. Whenever water is dispensed the counter is incremented to account for the water dispensed. When the counter is above 90% of the capacity of the chosen filter a warning message, "CHECK FILTRATION ", is displayed in place of the "READY" message. To reset the counter the user must enter the programming menu and enter the RESET FILTER entry described below. The following entries only show when a filter is selected. If the filter selection is OFF then following entries are not available. Pressing the Hot Water key (G) (see Fig 1) to leave the entry and return to the Main Programming menu.

**GAL. REMAINING:** This entry scrolls the number of Gallons left before the filter should be replaced. Pressing the Hot Water key (G) (see Fig 1) to leave the entry and return to the Main Programming menu.

**RESET FILTER:** When in this entry the message "PRESS OPEN TO RESET FILTER". Press the Open Door key will reset the Filter Use counter to the value chosen in the SELECT WATER FILTER entry above. Pressing the Hot Water key (G) (see Fig 1) to leave the entry and return to the Main Programming menu.

**EXIT MENU:** – Exit to Ready to Brew Mode and save parameters.

# DRAINING THE HOT WATER TANK

THE DRAIN TUBE IS CLIPPED TO THE TANK PLATE IN FRONT OF THE TANK. THE HOT WATER TANK CAN BE DRAINED FROM THE FRONT OF THE MACHINE – UNPLUG MACHINE FROM POWER SOURCE. REMOVE POD WASTE TRAY.

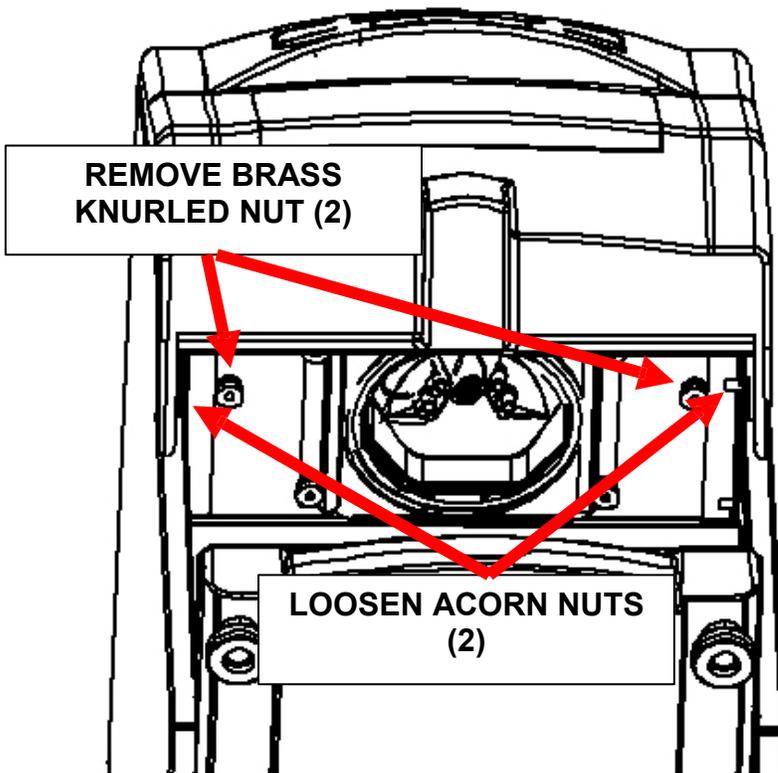
**CAUTION-UNLESS THE TANK IS LEFT TO COOL THE WATER IS EXTREMELY HOT AND CAN CAUSE HARMFUL BURNS.** REPLACE DRAIN PLUG, ENSURE HOSE CLAMP IS TIGHT AND REPOSITION DRAIN HOSE BEFORE RE-FILLING THE HOT WATER TANK.

## SERVICING THE MACHINE

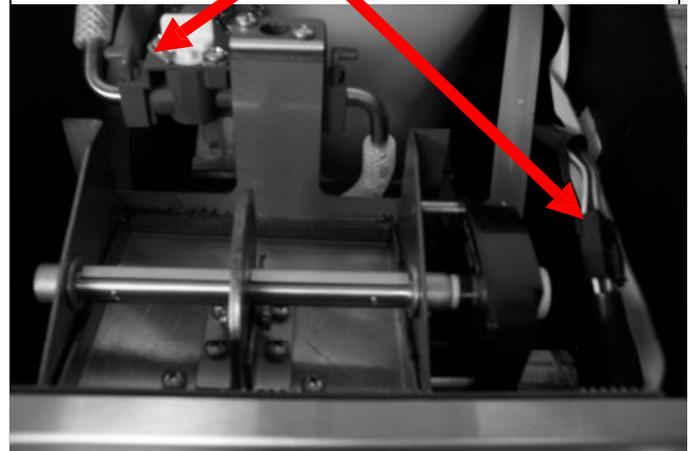
The Fresh Cup machine has a modular Water Tank Assembly and Brew Mechanism. These assemblies can be easily removed from the machine by removing or loosening Machine nuts as noted in drawings below:

### REMOVING THE BREW MECHANISM

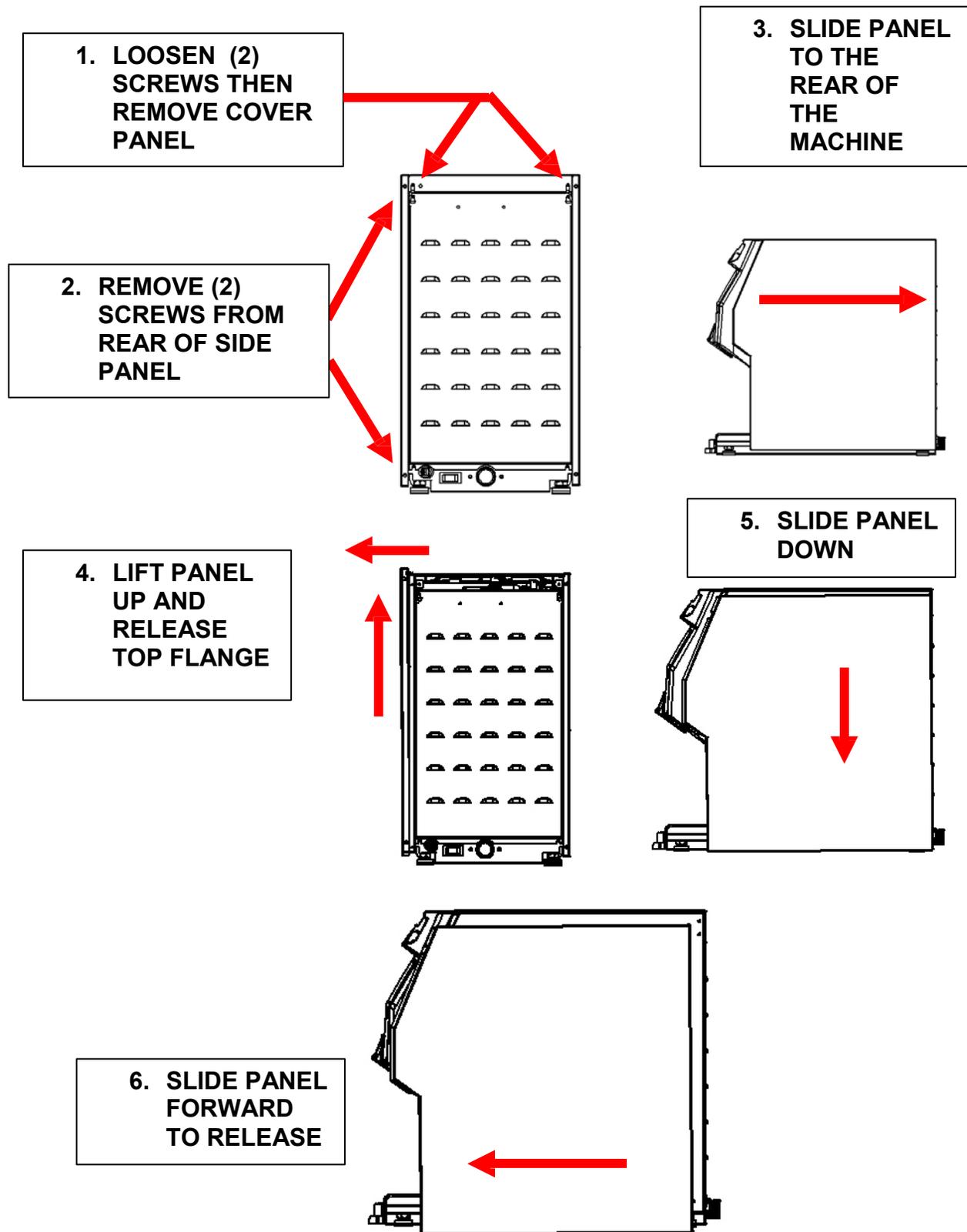
**BREW MECHANISM  
ACCESS SCREWS  
(VIEW FROM BOTTOM OF MACHINE)**



**NOTE: TO REMOVE BREW MECHANISM, UNSNAP WATER & HARNESS FITTINGS**



# SIDE PANEL REMOVAL



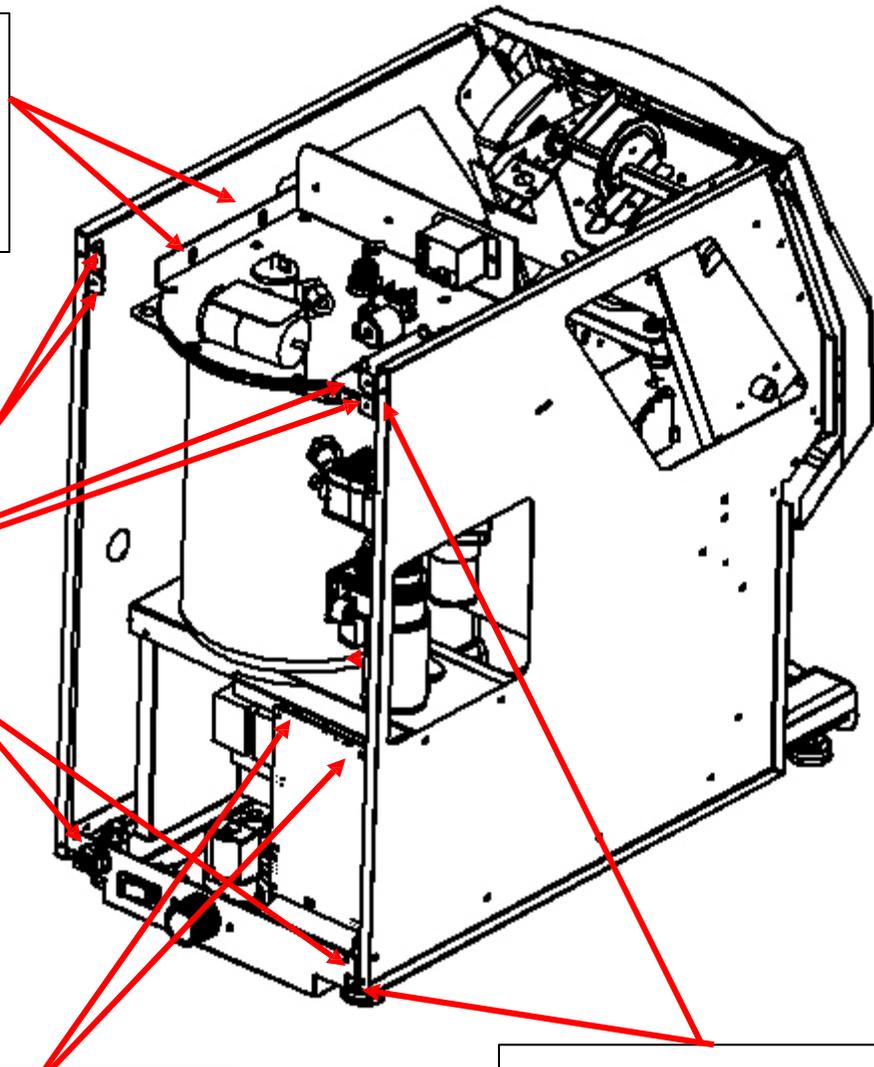
# TANK REMOVAL & ACCESS AREAS

REMOVE (2) 8-32 NUTS TO PREPARE TANK FOR REMOVAL (TWO ON TOP OF TANK)

LOOSEN SCREWS TO REMOVE TOP & BACK COVERS

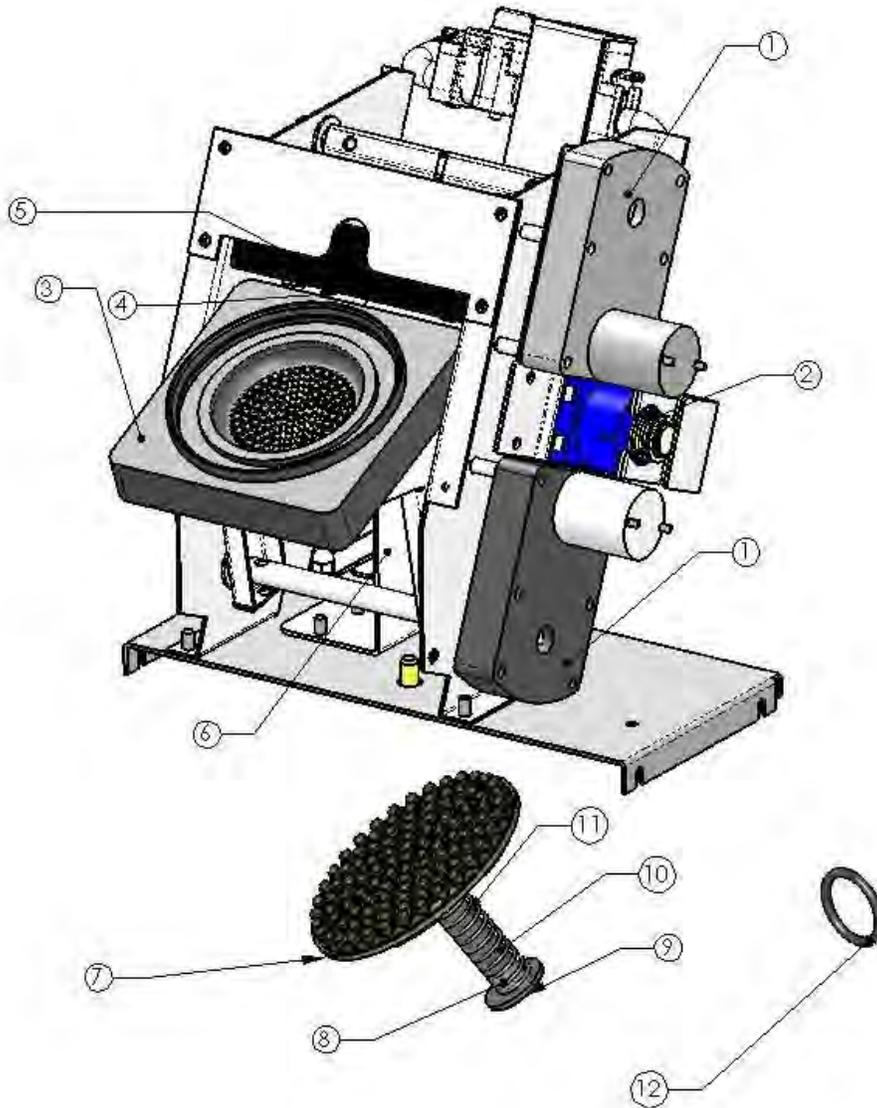
LOOSEN BUT DO NOT REMOVE THESE 2 SCREWS THEN LIFT & PULL CONTROL BOARD & BRACKET OUT OF MACHINE TO ACCESS TRANSFORMER

REMOVE (2) 6-32 SCREWS TO REMOVE SIDE PANEL FOR PUMP ACCESS (REMOVE TOP COVER BEFORE REMOVING SIDE PANELS)



# POD BREWING MECHANISM

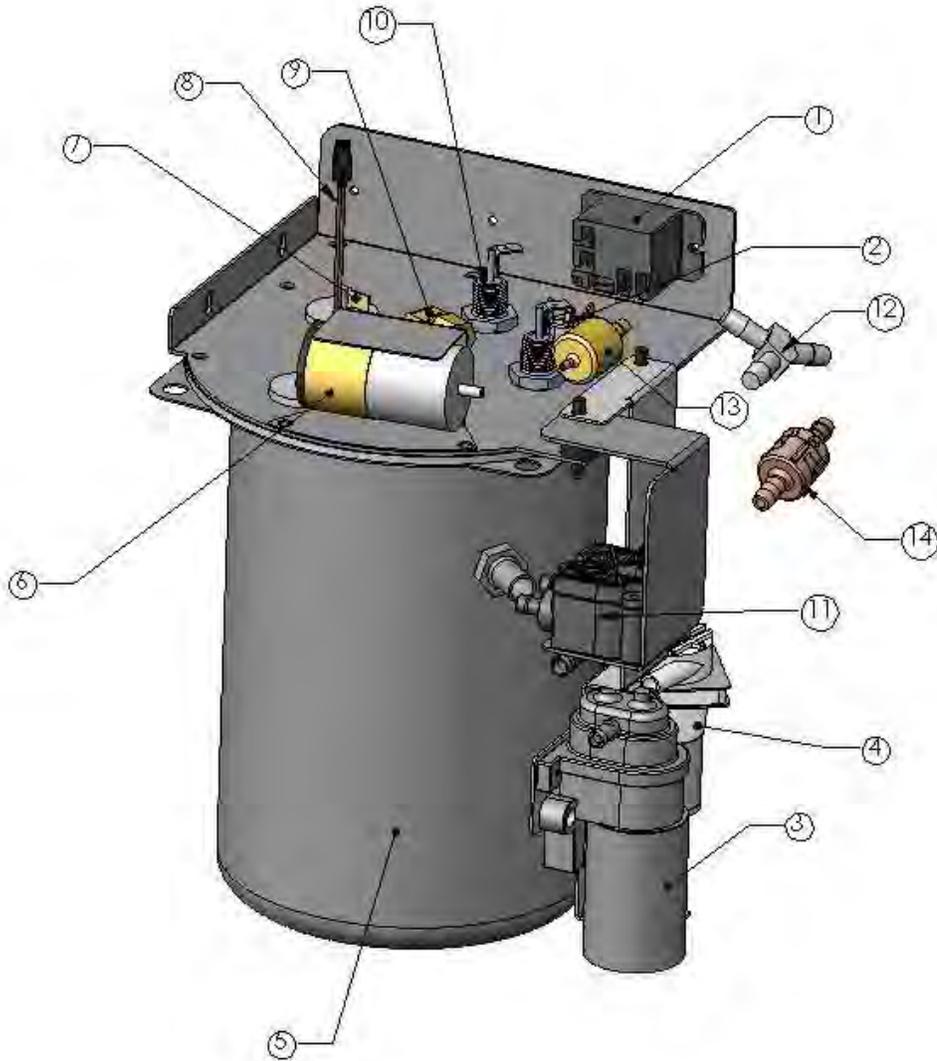
## 780585



ITEM #	PART NUMBER	DESCRIPTION	QTY/EA
1	780230	BREW MECH MOTOR	2
2	780231	DELTROL SOLENOID	1
3	780587	LOWER BREW CHAMBER UNIVERSAL 2	1
4	773246	U-CUP SEAL RING	1
5	780539	CHAMBR UP, I/H, BR, 56&61MM	1
6	780554	EJECT SLOPE CAM ASS'Y	1
7	780588	MOLDED BUMP DISC PAD	1
9	780546	KICKER SLIDE WASHER	1
10	780536	1/4" X 1" STAINLESS STANDOFF SPACER	1
11	780541	COMPRESSION SPRING	1
12	780264	LOWER BREW CHAMBER O-RING	1

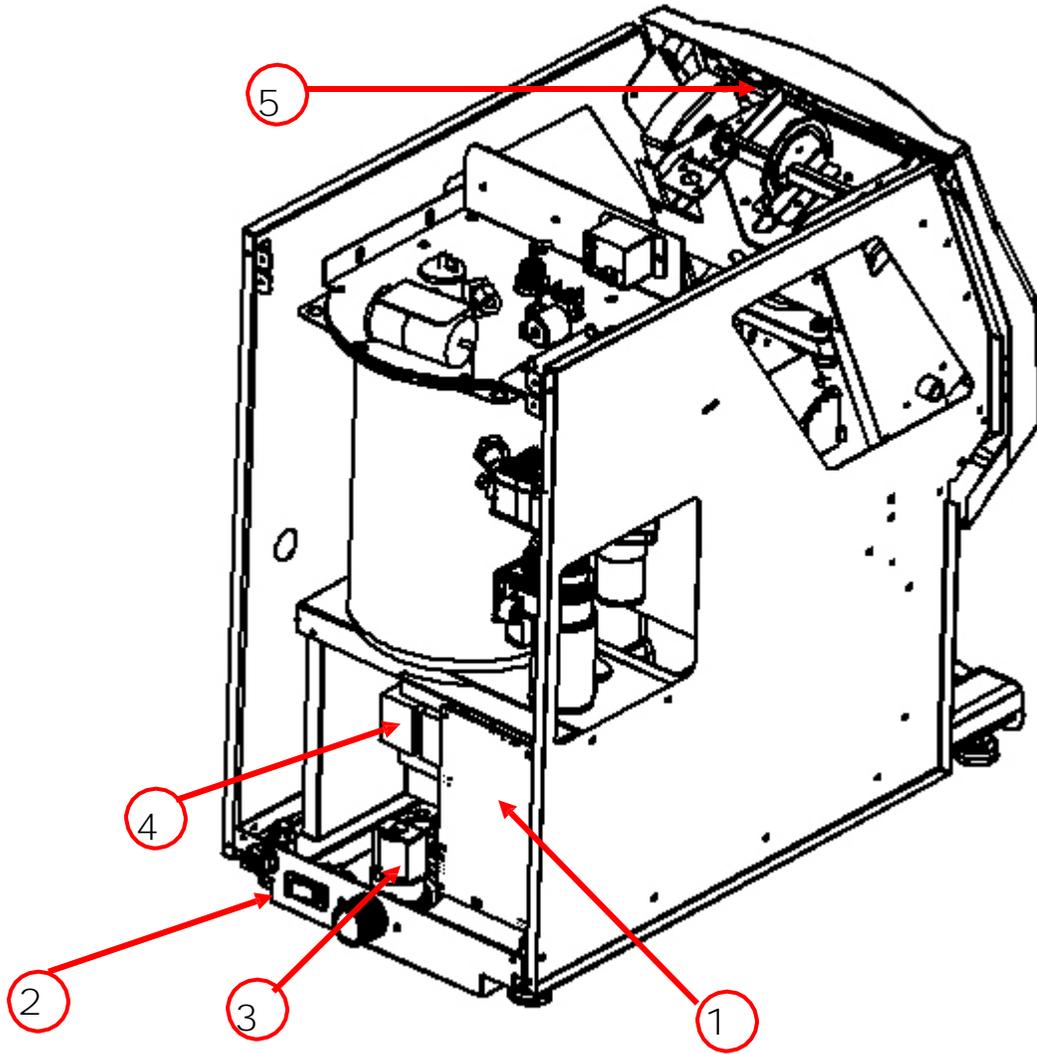
# TANK ASS'Y

## 780609



ITEM #	PART NUMBER	DESCRIPTION	QTY/EA
1	110958	RELAY, 12 VDC SPST 30A	1
2	111593	HI-LIMIT THERMOSTAT	1
3	109937	GEAR PUMP ASS'Y	1
4	781772	PUMP ASS'Y W/ELBOW (HOT WATER)	1
5	780253	TANK ONLY	1
6	773056	AIR PUMP, POD	1
7	500396	LIQUID LEVEL PROBE& BUSHING	2
8	151677	DUAL TEMP THERM PROBE	1
9	100149	ELBOW ¼ C X 1/8 NPT	1
10	704166-10 (1700W) 704161-10 (1400W)	TANK HEATING ELEMENT (US) TANK HEATING ELEMENT (CAN)	1
11	120682	FLOWMETER	1
12	767281	"WYE" HOSE FITTING	1
13	202165	AIR PUMP CHECK VALVE	1
14	202166	WATER PUMP CHECK VALVE	1

# ELECTRICAL COMPONENTS



ITEM #	NEWCO PN	DESCRIPTION	QTY/EA
1	782187	CONTROL BOARD & BRACKET	1
2	110626	SWITCH, DPST, ON/OFF	1
3	102383	SOLENOID FILL VALVE	1
4	105115	TRANSFORMER 120VAC-24VAC	1
5	780601	DISPLAY BOARD	1

# ERROR MESSAGES

***Message - "CONTACT/SERVICE"  
LWR/UPR THERM***

**THERMISTOR IS OPEN OR SHORTED-  
REPLACE PN 151677**

***Message - "CONTACT/SERVICE"  
OVERHEAT***

**RAPID TEMPERATURE RISE-HEATER ON WITH LOW  
WATER LEVEL-CHECK FILL VALVE OR WATER SUPPLY  
LINE**

***Message - "CONTACT/SERVICE"  
TOP/BTM BREW MOTOR OPEN***

**BREW CHAMBER DRIVE MOTOR ERROR-CHECK FOR  
JAM OR OBSTRUCTION IN BREW CHAMBER**

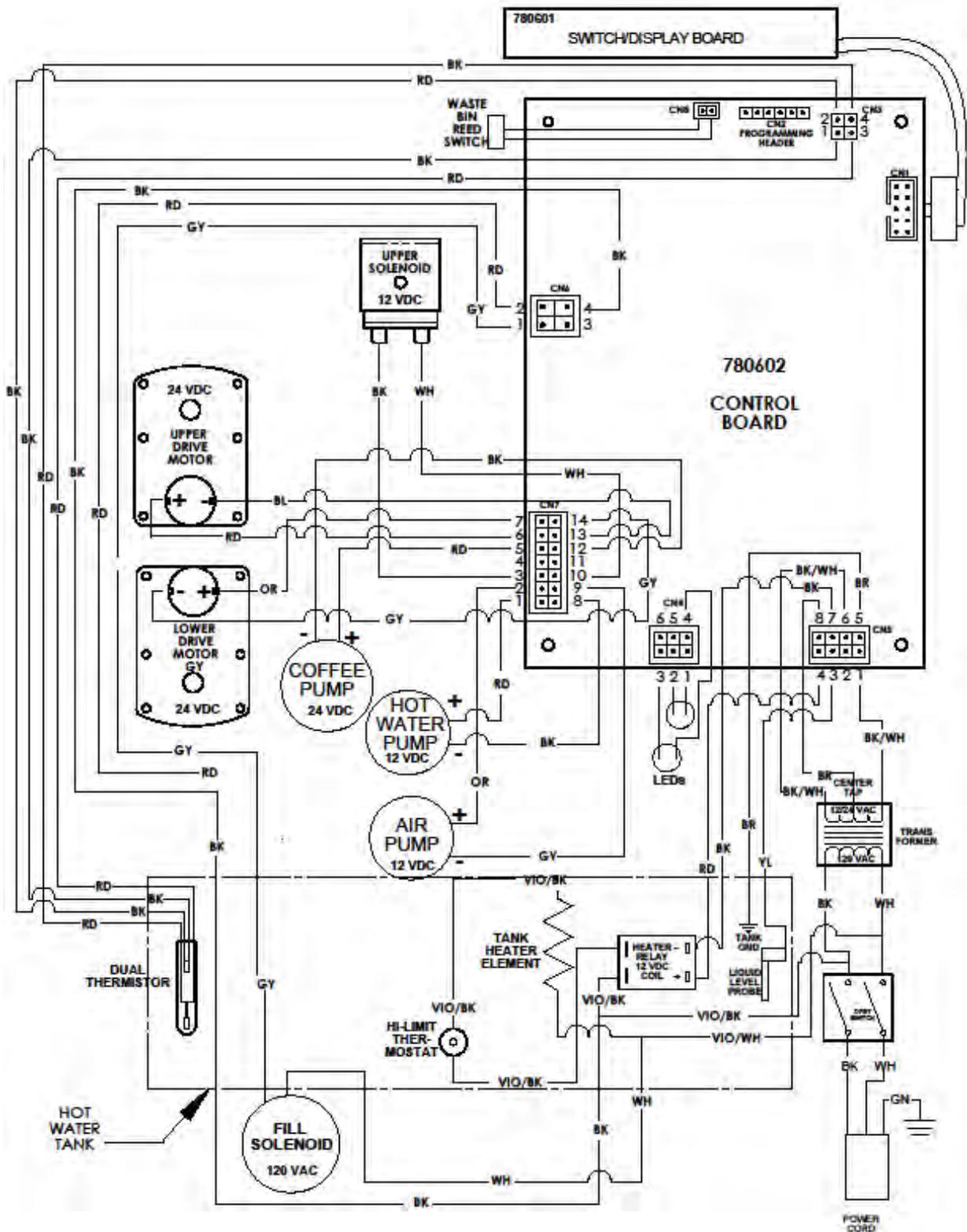
***Message - "CONTACT/SERVICE"  
CHECK WATER***

**WATER NOT REACHING LEVEL PROBE-CHECK WATER  
SUPPLY OR CHECK FOR WATER LEAK**

***Message - " CONTACT/SERVICE"  
CHECK WATER***

**WATER NOT HEATED DURING TIMEOUT PERIOD-CHECK  
HEATER RELAY PN 110958 OR HEATING ELEMENT PN  
704166-10(1700W US) OR 704161-10 (1400W CANADA) OR  
HI-LIMIT THERMOSTAT PN 111593**

# WIRING DIAGRAM



**LEFT BLANK INTENTIONALLY**

**LEFT BLANK INTENTIONALLY**