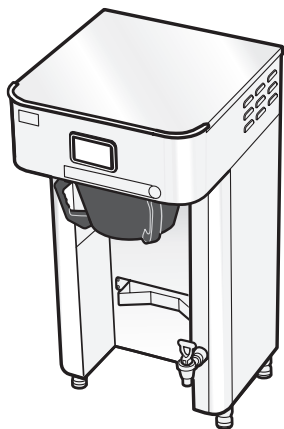




## WILBUR CURTIS COMPANY, INC.

### Service Manual – OMGS 3 Phase & 1 Phase



#### Models:

- OMGS 3PH & 1PH
- OMGS16



**CAUTION:** Please use this setup procedure before attempting to use this brewer. Failure to follow the instructions can result in injury or the voiding of the warranty.



**IMPORTANT:** Equipment to be installed to comply with applicable governmental plumbing/electrical codes having jurisdiction.



**CAUTION:** DO NOT connect this brewer to hot water. The inlet valve is not rated for hot water.

#### Important Safeguards/Symbols

This equipment is designed for commercial use. Any servicing other than cleaning and routine maintenance should be performed by an authorized Wilbur Curtis Company Service Technician.

- DO NOT immerse the unit in water or any other liquid
- To reduce the risk of fire or electric shock, DO NOT open service panels. There are no user serviceable parts inside.
- Keep hands and other items away from hot areas of the unit during operation.
- Never clean with scouring powders or harsh chemicals.

#### Symbols:



**WARNINGS – To help avoid personal injury**



**Important Notes/Cautions – from the factory**



**Sanitation Requirements**

This Curtis Generation 4 Unit is Factory Pre-Set and Ready to Go Right from the Box.

Following are the Factory Settings for your G4 Coffee Brewing System:

- Brew Temperature = 200°F
- Water Bypass = On for LARGE & MEDIUM Brew Only
- Brew Volume = Set to Vessel Requirement.

System Requirements:

- Water Source 20 – 90 PSI (Minimum Flow Rate of 4 GPM)
- Electrical: See attached schematic for standard model or visit [www.wilburcurtis.com](http://www.wilburcurtis.com) for your model.

#### SETUP STEPS

1. The unit should be level (left to right - front to back), on a secure surface.
2. Connect the water line to the water inlet fitting at the rear of the unit. Water volume flow to the machine should be consistent. Use tubing sized sufficiently to provide a minimum flow rate of four gallons per minute.



**NOTE:** A water filtration system must be used to help maintain trouble-free operation. **Air must be purged from the cartridge prior to connection to equipment.** In areas with extremely hard water, we highly recommend the use of a Curtis approved water filter. For our full line of filters, please log on to [www.wilburcurtis.com](http://www.wilburcurtis.com).



NSF International requires the following water connection:

1. A quick disconnect or additional coiled tubing (at least 2x the depth of the unit) is required so that the unit can be moved for cleaning.
2. This unit must be installed with adequate back-flow protection to comply with applicable federal, state and local codes.
3. Water pipe connections and fixtures directly connected to a potable water supply shall be sized, installed and maintained in accordance with federal, state, and local codes.

3. Connect the unit to electrical outlet with appropriate amperage rating (see serial tag on machine).
4. Now that electrical power is connected, flip the power switch to the 'ON' position (located on right side). The water tank will begin to fill. The touch screen will display Filling. When the water level in the tank reaches the probe, the heating element(s) will turn on.
5. Heating tank will require approximately 25 minutes to reach operating temperature (factory setting is 200°F). When the unit reaches operating temperature, it will display "READY TO BREW".

ISO 9001:2008 REGISTERED

WILBUR CURTIS CO., INC.  
6913 West Acco Street  
Montebello, CA 90640-5403  
For the latest information go to  
[www.wilburcurtis.com](http://www.wilburcurtis.com)  
Tel: 800-421-6150  
Fax: 323-837-2410

Technical Support: 1-800-995-0417 M-F 5:30am-4:00pm PT

Email: [techsupport@wilburcurtis.com](mailto:techsupport@wilburcurtis.com)

# QUICK START

Your Curtis G4/Gold Cup Series is Factory Pre-Set for Optimum Performance.

After connection to water and power; turn on the brewer at the rear toggle switch. You will hear a beep and the status lights will come on for a moment.

The screen will display MODEL NUMBER CONTROL BD NUMBER . Next FILLING is displayed. Water will fill the tank (3-5 minutes depending on water flow rate).

When the proper level is reached HEATING will appear on the screen. It takes approximately 45 minutes to reach the set point temperature.

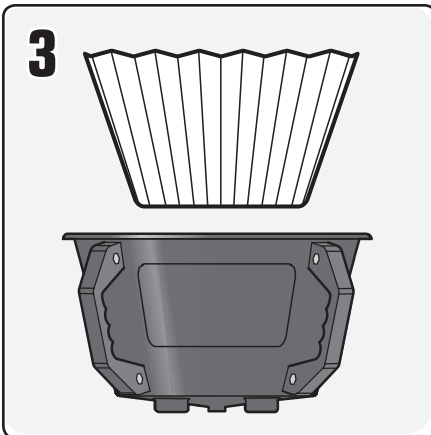
Control will display READY TO BREW when temperature reaches the set point. The unit is now ready to brew.

## COFFEE BREWING INSTRUCTIONS

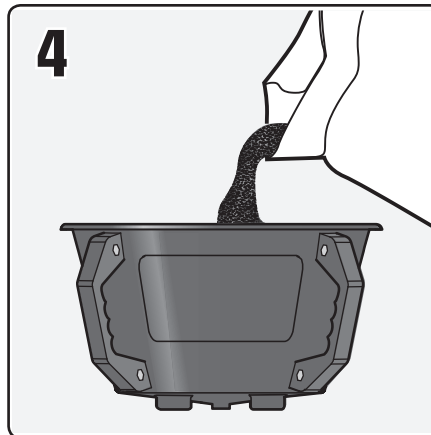
1. Brewer should be ON. Confirm this at the main toggle switch on the right side of the brewer. The touch screen should read Ready to Brew.
2. Place an empty coffee container centered beneath the brew cone.



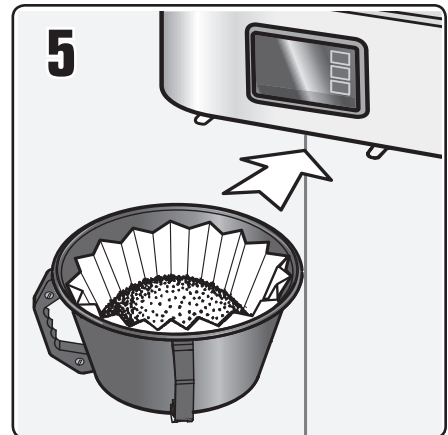
**WARNING – AVOID SCALDING: USE BOTH HANDLES FOR BETTER CONTROL.** The brew cone may be filled with hot coffee grounds and is difficult to manage with one hand. The coffee vessel is heavy when full. Take precautions to avoid dropping while moving.



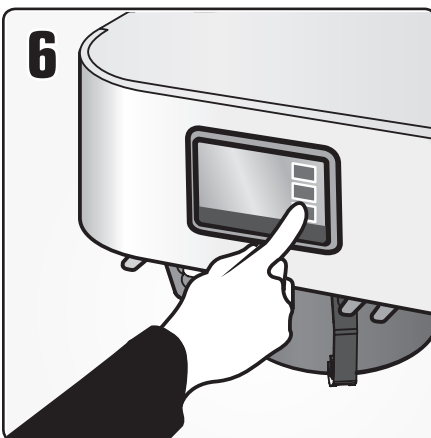
3. Place a new paper filter into the brew cone.



4. Fill the brew cone with the proper amount of ground coffee.



5. Transfer the filled brew cone to the brewer.



6. Start the brew cycle by hold your finger on the desired brew icon. As soon as you hear the click of the brew valve, the brew cycle has started and you can lift your finger.

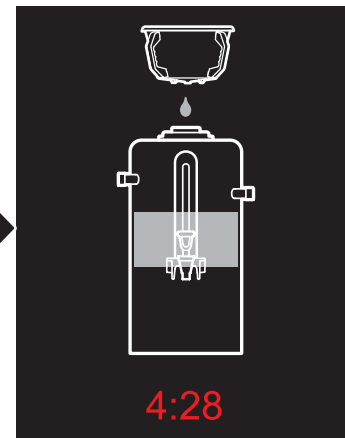
**Brew Code:** You may find that when a brew button is pressed, a key pad appears on the screen. This is a brew lock-out feature that

ENTER BREW CODE		
1	2	3
4	5	6
7	8	9
Del	0	OK

requires a code to be entered before a brew will start. The default is OFF.

**CAUTION:** When enabled, as soon as you enter the brew code a brew cycle starts.

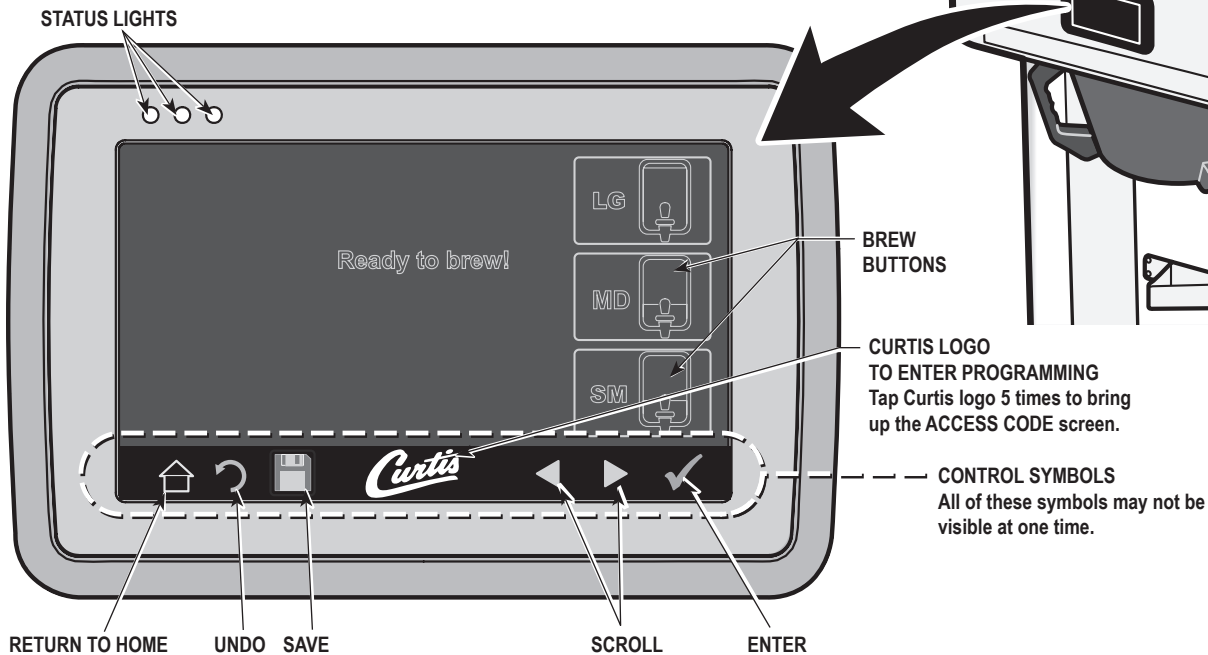
Refer to page 8 for more information about the Brew Code.



During the brew cycle, an animated 3 gallon server icon will appear on the screen and a brew timer will count down the time remaining on the brew cycle.

## Touch Screen Control Module

The touch screen turns on when power is available to the controller. The screen will contain standard control feature such as symbols and buttons. Pressing these elements with your finger tip will activate the programming functions. The default screen, as well as some added control buttons, are shown in the illustration below.



## PROGRAMMING

### CURTIS LOGO

Tap Curtis logo 5 times to enter the program mode. The ACCESS CODE screen will appear, requiring a numeric code to proceed.

ENTER BREW CODE		
1	2	3
4	5	6
7	8	9
Del	0	OK

**ACCESS CODE** screen. Default is 1 2 3 4. Once the code is entered, press OK. The Main Menu screen will appear.

The access code can be reset in Control Settings, PASSWORDS.



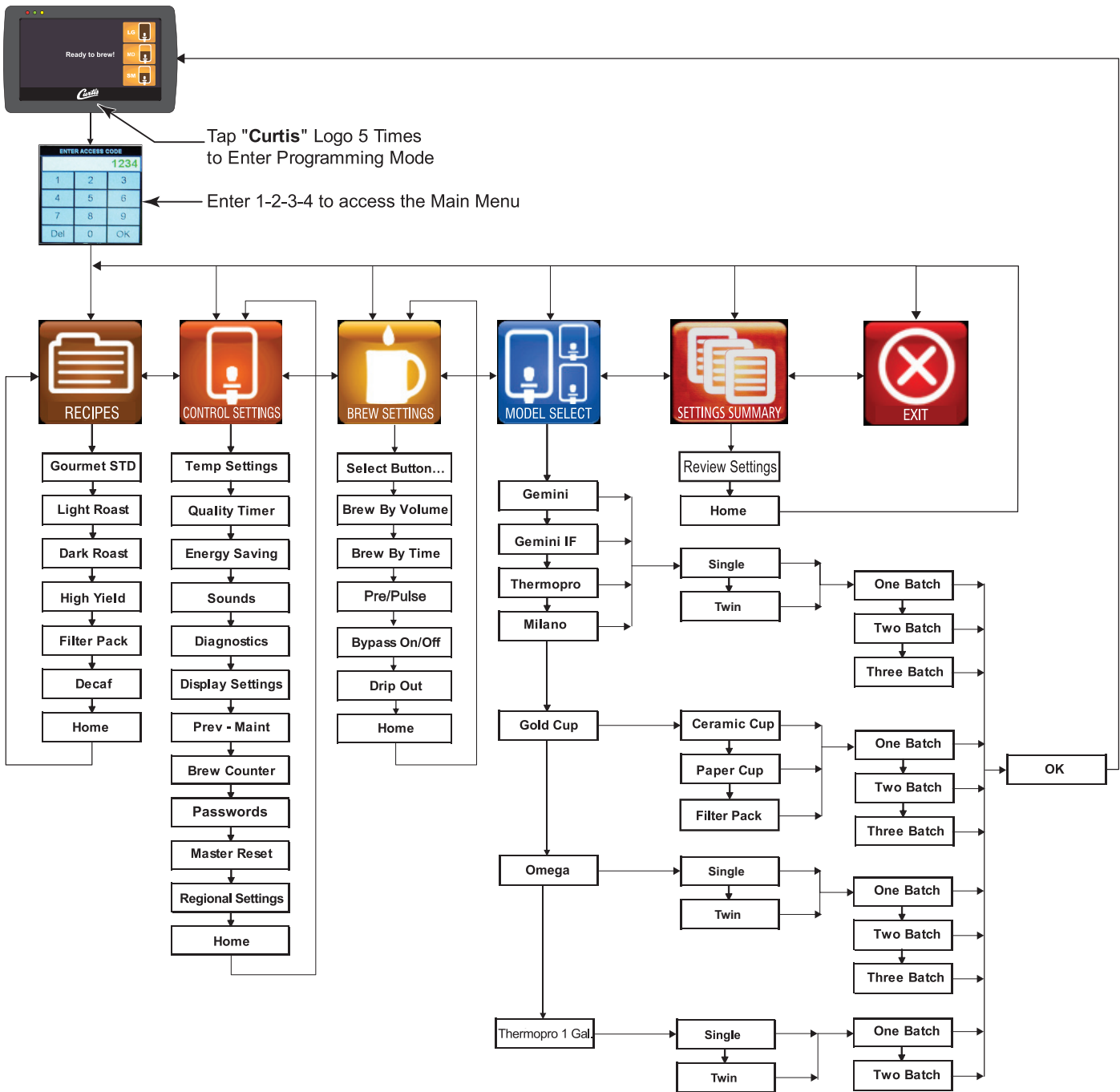
**MAIN MENU** screen contains six control icons:

RECIPES, CONTROL SETTINGS, BREW SETTINGS, MODEL SELECT, SETTINGS SUMMARY and EXIT.

PROGRAMMING Continued . . .

# Menu Tree

This chart explains how to enter the program mode and menu selections available from the MAIN MENU.



## Menu Features

### RECIPES

FUNCTION TO SET	SETTING RANGE	FACTORY SET DEFAULT	NOTES / COMMENTS
Global Recipes	Gourmet STD, Light Roast, Dark Roast, High Yield, Filter Pack, Decaf, Home	Gourmet STD	

### CONTROL SETTINGS

FUNCTION TO SET	SETTING RANGE	FACTORY SET DEFAULT	NOTES / COMMENTS
Temperature Settings	175°F - 206°F , 1°F Increments	Tank Temp = 200°F Minimum Brew Temp = 195°F	
Warmer Settings	Disabled, 1 Hr - 12 Hr, 1 Hr Increments.	<Disabled on GEMT/GEMS>	Note: This function is only visible on Gemini Units.
	1 Hr - 12 Hr, 1 Hr Increments.	<10 Hr. on GEMTIF/GEMSIF>	
	<OFF>, <HIGH>, <MED.>, <LOW>	<MED.> During Brewing	
Quality Timer	Disabled, 20min - 240min, 10 Minute Increments.	<Disabled on GEMT/GEMS/TP2T/TP2S/OMG/TPC2T/TPC2S> <120min on GEMTIF/GEMSIF>	Audible alarm when time is expired. (Only shows available when a machine has Warmer Elements). (Also this function is visible when Gemini models are selected).
Energy Save Mode (Activates after 4 Hours of Inactivity)	No Change	No Change	Tank temperature is maintained at the temp setpoint default
	Turn Tank Heater Off		Tank is turned off.
	Reduce tank temp to: 140°F		Tank temperature maintained at 140F.
Sounds	Beeper On/Off	On	Turns Board sounds Off or On
Diagnostics	-	Auto Test	Runs Diagnostic Tests
Display Settings	Brew Timer-Hide/Show	Show	Displays Brew Time
	Quality Timer Hide/Show	Hide (Models: GEMT/GEMS/TP2T/TP2S/OMGT/OMGS)	Displays Quality Timer
		Show (Models: GEMTIF/GEMSIF)	
	"Rinse Server"-Hide/Show	Show	Displays "Rinse Server" Message
	Screen Saver	Off	Displays Screen Saver
	Display Name	Blank	Displays Banner Name
Prev. Maintenance	Maintenance Interval	Off	Off, 1000 to 20000 Gallons, 1000 Increments
	Service Telephone Number	1-800-000-0000 x0000	
Brew Counter	Resettable	Resettable	For maintenance purpose (Resettable)
Passwords	Programming	1234	Reprogrammable; allows access to programming screens
	Brew (Enabled/Disabled)	Disabled	Reprogrammable; allows access to brewing screens
Master Reset	Reset	Are you sure? (Yes / No)	Select to Reset to Restore Factory Defaults
Regional Settings	SI/US	US	US Units or Metric Units
Home	-	-	Select to go to Home Page

# Menu Features

## Brew Settings

FUNCTION SET	SETTING RANGE	LARGE BREW DEFAULT	MEDIUM BREW DEFAULT	SMALL BREW DEFAULT	NOTES / COMMENTS
Brew by Volume	OFF, 30sec to 19Min.59sec.	384oz ± 16oz			
			288oz ± 16oz		To Set: Press Brew to start / Press Brew to stop.
				192oz ± 10oz	
Brew by Time	0 to 19Min - 59sec, 1min-01secs increments	5min-00secs			
			3min-50secs		Note: These are the default times
				2min-30secs	
Pre-Infusion	Disabled	Disabled	Disabled	Disabled	OFF
	10 secs On/10 secs Off				When this is Chosen"COLD BREW LOCK set to 5°F, Pulse Brew On/Off" Function <Disabled>
	20 secs On/20 secs Off				When this is Chosen"COLD BREW LOCK set to 5°F, Pulse Brew On/Off" Function <Disabled>
	30 secs On/30 secs Off				When this is Chosen"COLD BREW LOCK set to 5°F, Pulse Brew On/Off" Function <Disabled>
	40 secs On/40 secs Off				When this is Chosen"COLD BREW LOCK set to 5°F, Pulse Brew On/Off" Function <Disabled>
	50 secs On/50 secs Off				When this is Chosen"COLD BREW LOCK set to 5°F, Pulse Brew On/Off" Function <Disabled>
	60 secs On/60 secs Off				When this is Chosen"COLD BREW LOCK set to 5°F, Pulse Brew On/Off" Function <Disabled>
Pulse Brew On/Off	OFF	OFF	OFF	OFF	OFF
	A				A = "10 seconds ON 4 Times"/"10 seconds OFF 4 Times", then "ON" Till End of Brew Cycle.
	B				B = "1 Minute ON", "10 seconds OFF 4 Times"/10 seconds ON 4 Times", Till end of Brew Cycle.
	C				C = "25 seconds ON 5 Times"/"20 seconds OFF 5 Times", then "ON" Till End of Brew Cycle.
	D				D = Manual Program: "PULSE COUNT = 1 to 20 pulses", "ON TIME = 5 - 150 seconds", "OFF TIME = 5 - 150 seconds", 5 second increments.
	E				E = Manual Program: "PULSE COUNT = 1 to 8 pulses", "ON TIME = 0 - 150 seconds", "OFF TIME = 1 - 150 seconds", 1 second increments.
By-Pass On/Off	Off, 5%-50%, in 1% increments	20%			
			20%		Reprogrammable
				10%	
Drip-Out Mode	Off, 10 Seconds - 15min, 10 Second Increments	3 min			
			3 min		Reprogrammable
				2 min	
Home	-	-	-	-	Select to go to Home Page

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## System Fault Messages

### WARNING MESSAGES - ALLOWS BREWING

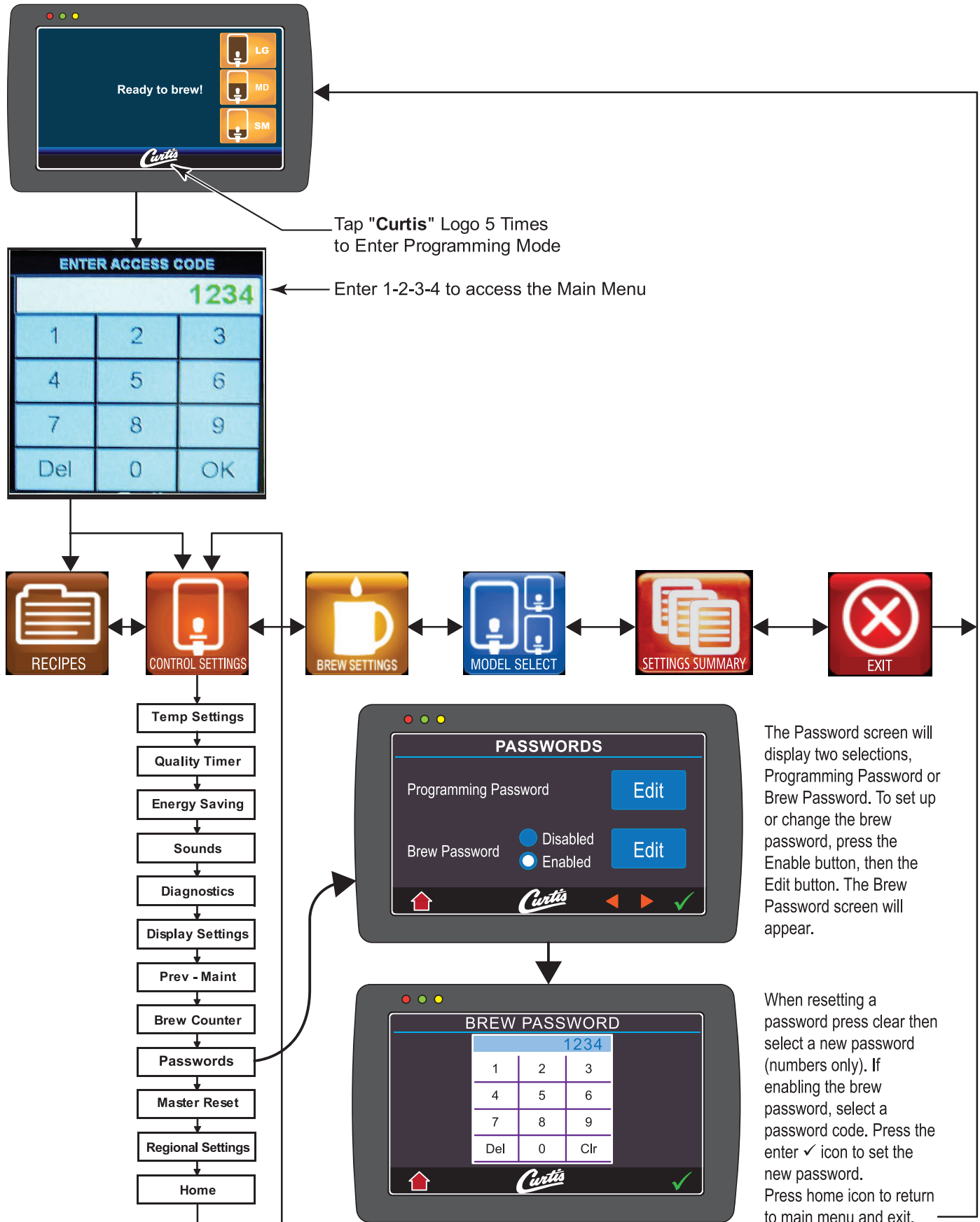
MESSAGE DISPLAY	WARNING DESCRIPTION	CAUSE
Maintenance Required	Maintenance Required	Brew count "Gallons Since Reset" exceeds programmed Preventative Maintenance period
Low Water Flow Warning	Low Water Flow	If the Inlet valve remains on longer than XX Seconds (during the brew cycle only) and repeats TWICE during that brew cycle. It shall clear upon the next brew and if the same low flow exists again, it will re-appear. XX = Omega 30 secs

### ERROR MESSAGES - STOPS BREWING

MESSAGE DISPLAY	ERROR DESCRIPTION	CAUSE
Water Level Error	Fill run error / Overflow	The fill solenoid has either run for more than 10 minutes on the initial tank fill or 120 Seconds on Large Brewers and 30 Seconds on CGC Brewer in normal operation
Sensor Error	Open Sensor	Break in the temperature thermistor circuit or short circuit.
Over Temp. Error	Excess Temperature	The sensor is reading that temperature in the heating tank has risen above 210°F, or sensor has shorted to ground.
Internal Error 1	UPM-UCM Communication	Break in the UPM-UCM Communication circuit.



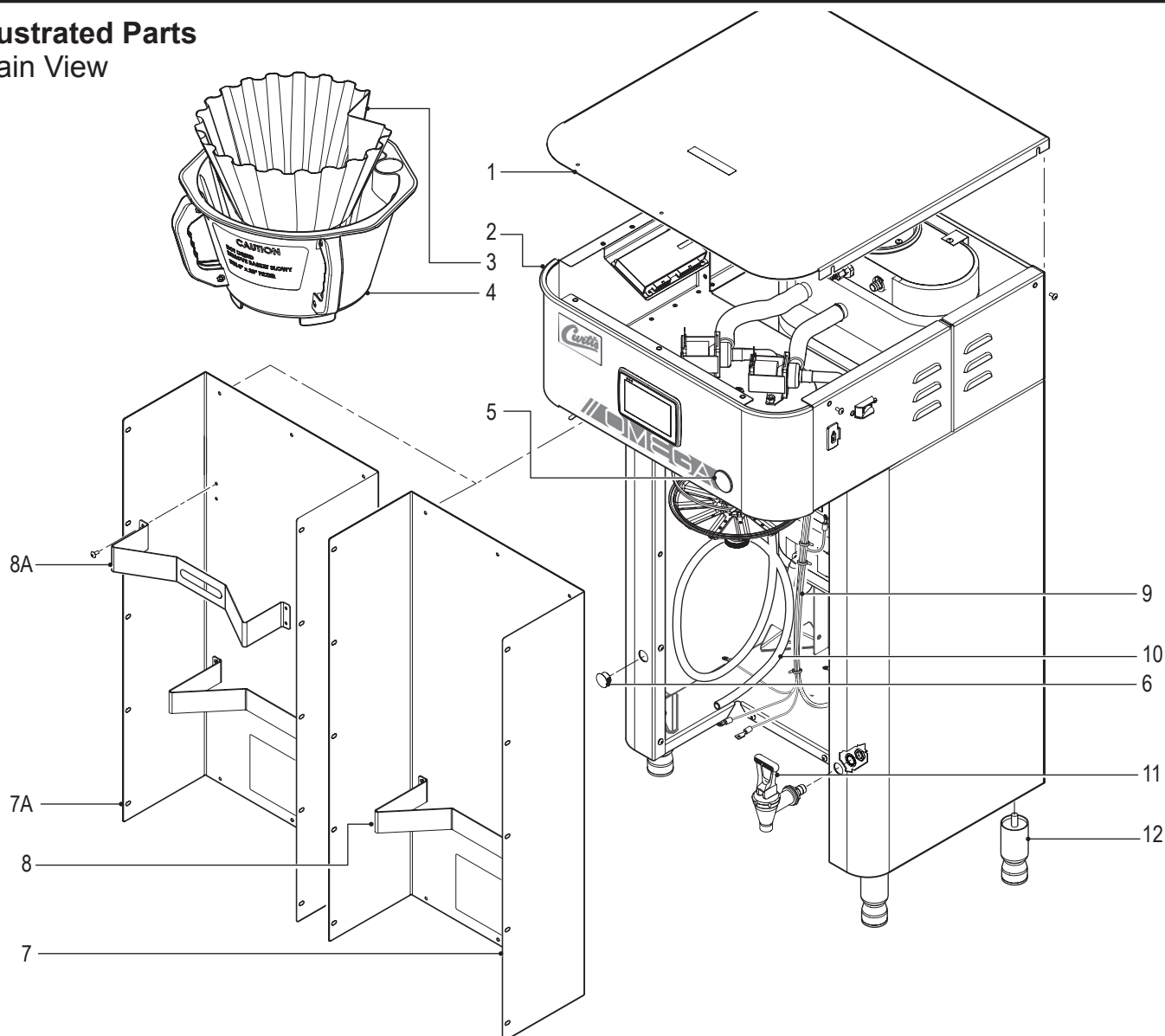
## Brew Access Code





## Illustrated Parts

### Main View

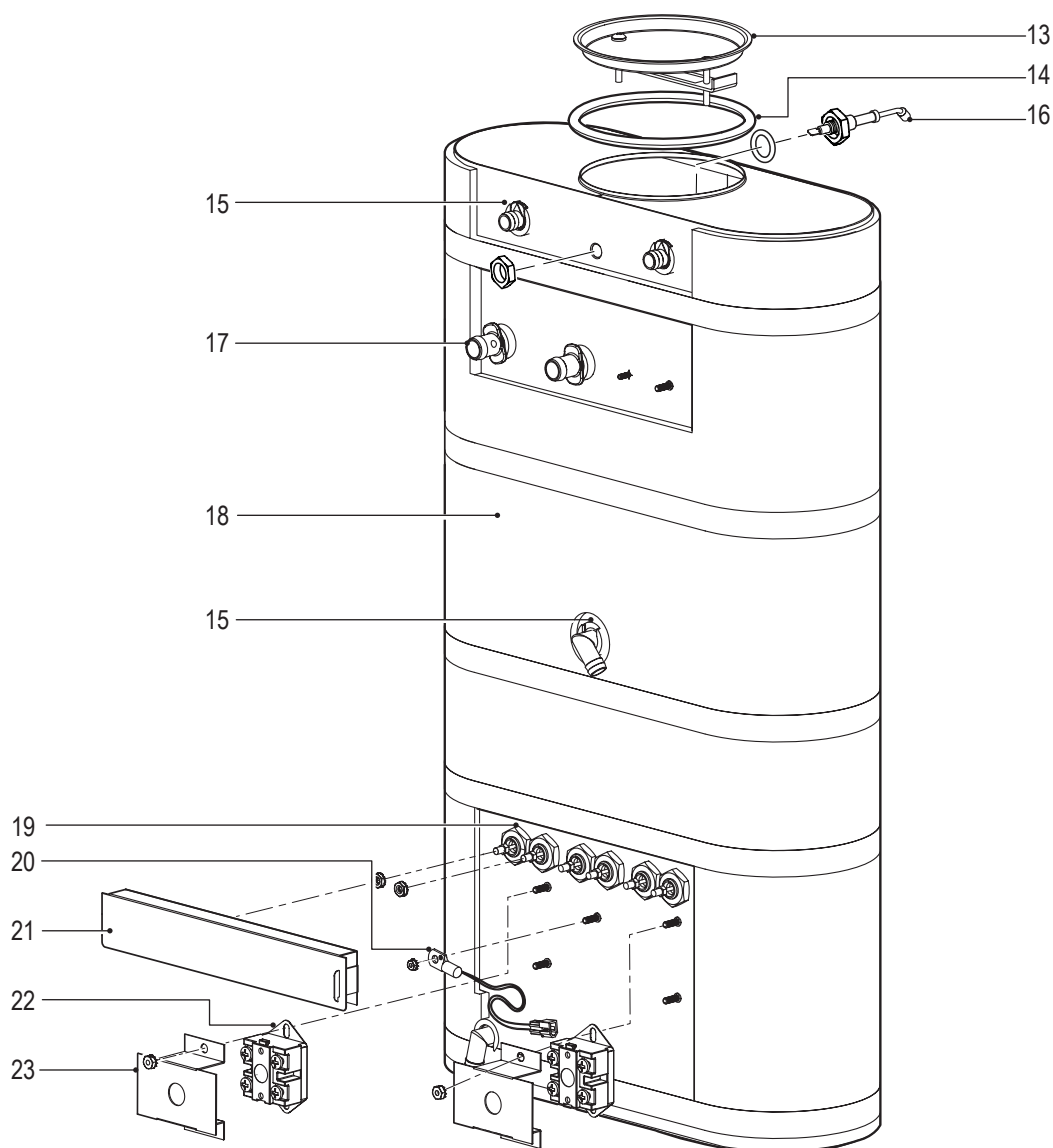


### Parts List Main View

ITEM №	PART №	DESCRIPTION
1	WC-62068*	LID, TOP OMGS
2	WC-53115	TRIM, EDGE VINYL METAL CORE (3 FT)
3	GEM-6-103*	FILTER PAPER, 20 x 8 OMEGA
4	WC-33004*	BREW CONE ASSY, NON-METAL OMEGA
5	WC-39805	LABEL, GOLD CUP NAMEPLATE
6	WC-14017	PLUG, DOME 0.75"DIA HOLE BLACK NYLON 6/6
7	WC-62069-102	COVER ASSEMBLY, FRONT OMGS NON-METAL BREW CONE
7A	WC-62069-101	COVER ASSEMBLY, FRONT <b>NON-ROTATE OPTION ONLY</b>
8	WC-61819	BRACKET, SERVER STOP
8A	WC-61819-101	BRACKET, BREWCONE <b>NON-ROTATE OPTION ONLY</b>
9	WC-13991	HARNESS ASSY OMGS
10	WC-5310	TUBE, 5/16 ID X 1/8 W SILICONE
11	WC-1825*	FAUCET, ASSY HOT WATER TP2S
12	WC-3528	LEG, 4" ADJUSTABLE 3/8-16 THREAD

\* SUGGESTED PARTS TO STOCK

## Illustrated Parts Heating Tank



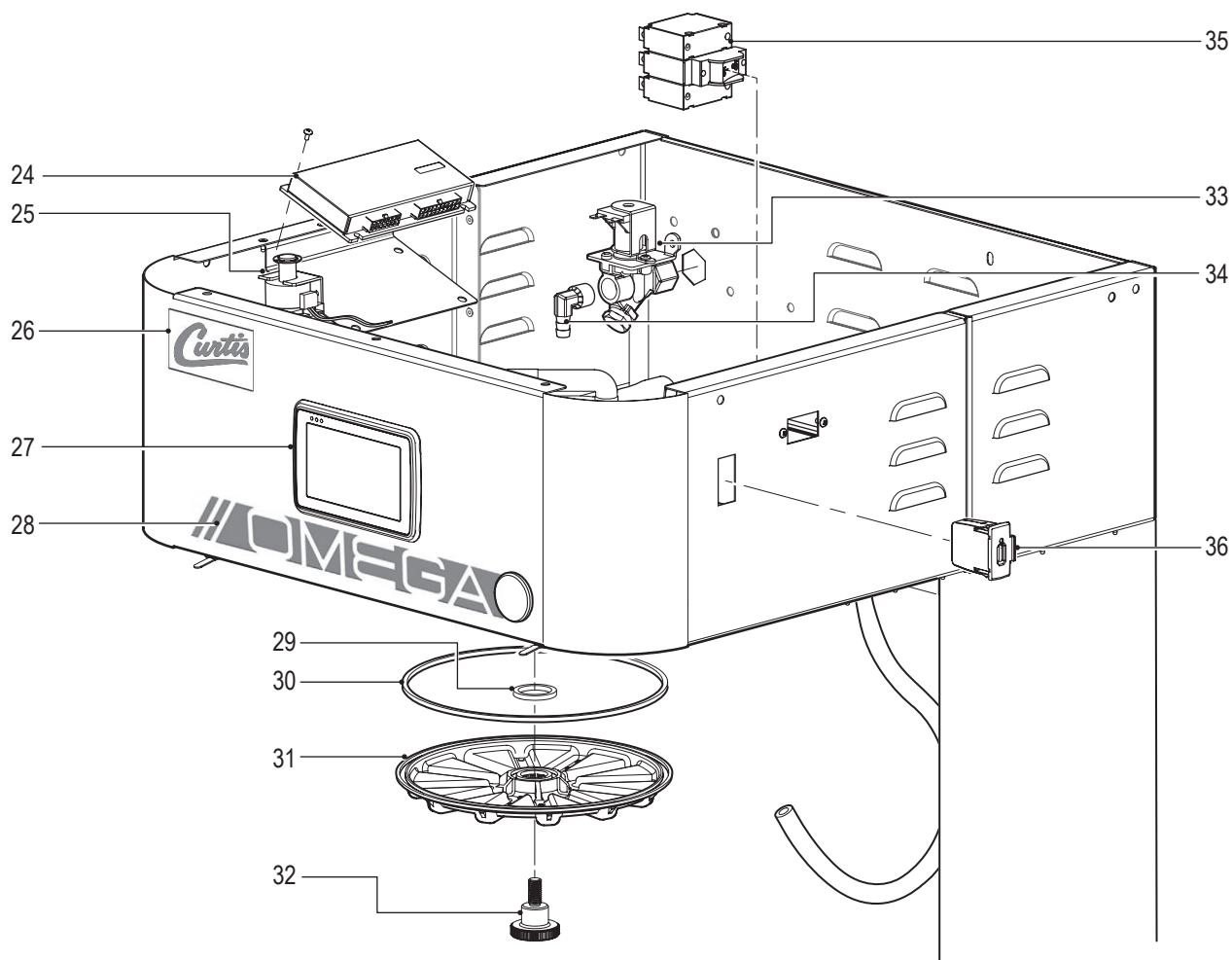
## Parts List Heating Tank

Item №	Part №	Description
13	WC-37008	KIT, TANK LID ROUND
14	WC-43067*	O-RING, 4½ I.D. x Ø.285 C.S. SILICONE
15	WC-37266*	KIT, FITTING TANK OVERFLOW
16	WC-5527K*	KIT, PROBE WATER LEVEL O’RING & NUT
17	WC-37357*	KIT, STRAIGHT PLASTIC FITTING AND BUSHING 12MM
18	WC-62091	TANK, COMPLETE 7.5KW 220VAC OMGS
19	WC-934-04*	KIT,ELEMENT HEATING 2.5KW 220V W/ NUTS & WASHERS
20	WC-1438-101*	SENSOR, TANK TEMPERATURE
21	WC-43149	GUARD, HEATING ELEMENT
22	WC-522 *	THERMOSTAT, HI LIMIT HEATER DPST 277V-40A
23	WC-43055	GUARD, SHOCK RESET THERMOSTAT

\* Suggested Parts to Stock

## Illustrated Parts

### Top Wrap



## Parts List

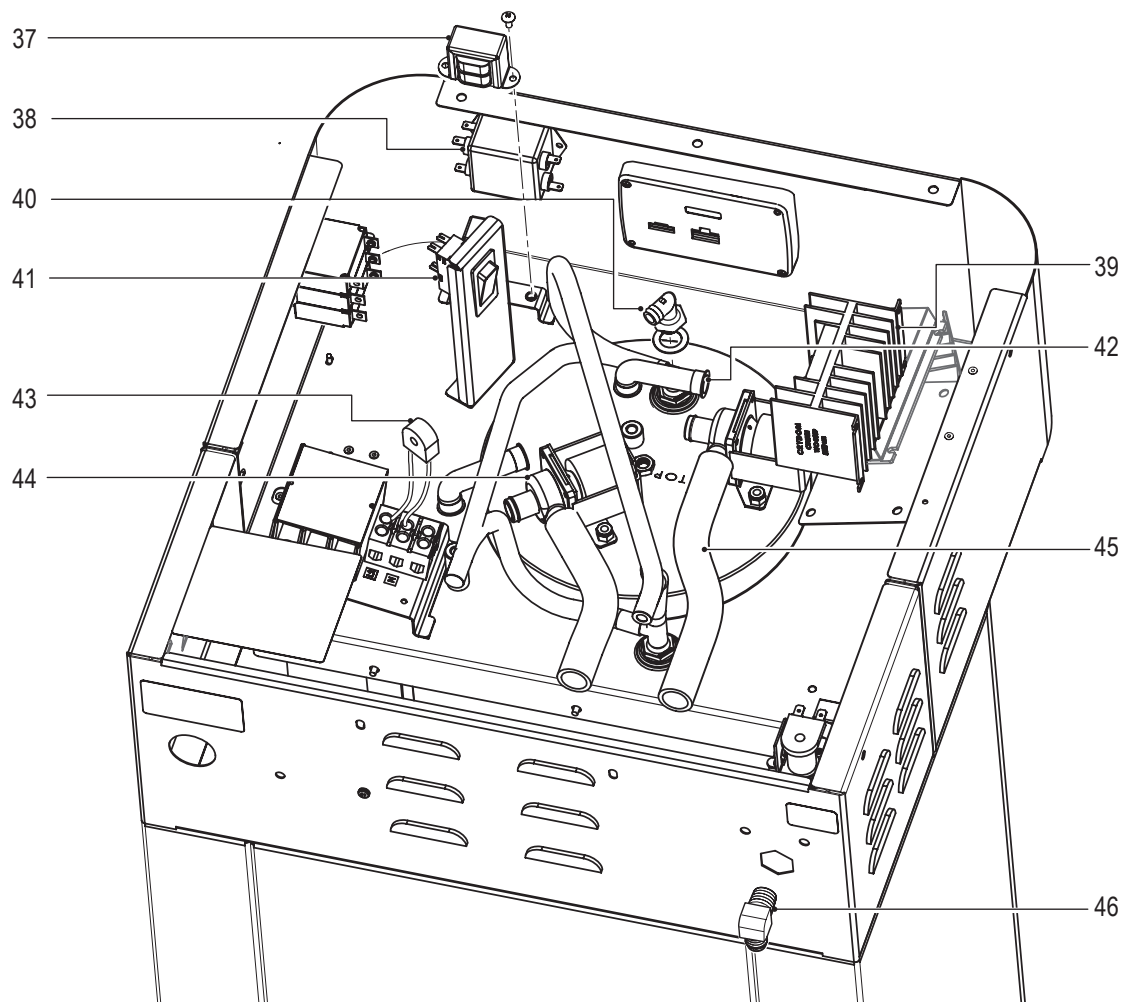
### Top Wrap

Item №	Part №	Description
24	WC-10001*	UNIVERSAL POWER MODULE G4
25	WC-442	SOLENOID, LOCK BREW CONE RIGHT 120VAC
26	WC-390092	LABEL, FRONT CURTIS LOGO
27	WC-10000*	CONTROL MODULE (UCM), TOUCH SCREEN G4
28	WC-39982	LABEL, FRONT WRAP OMEGA
29	WC-43140*	O-RING, .984 I.D. X .130 THICK BUNA-N
30	WC-43141*	O-RING, 7.484 I.D. X .139 THICK BUNA-N
31	WC-29086	SPRAYHEAD, PLASTIC 8 INCH DIAMETER
32	WC-4549	SCREW, .375-16x.787 KNURLED THUMB SST
33	WC-890-102*	VALVE, INLET 120V-10W 4GPM
34	WC-29089	FITTING, 3/8" MNPT x 3/8" HOSE BARB BRASS
35	WC-172*	SWITCH, ROCKER STYLE "SWITCH ONLY" 50 AMP
36	WC-10008	UNIVERSAL HOST ADAPTER (USB - G4)

\* SUGGESTED PARTS TO STOCK

## Illustrated Parts

### Top Wrap



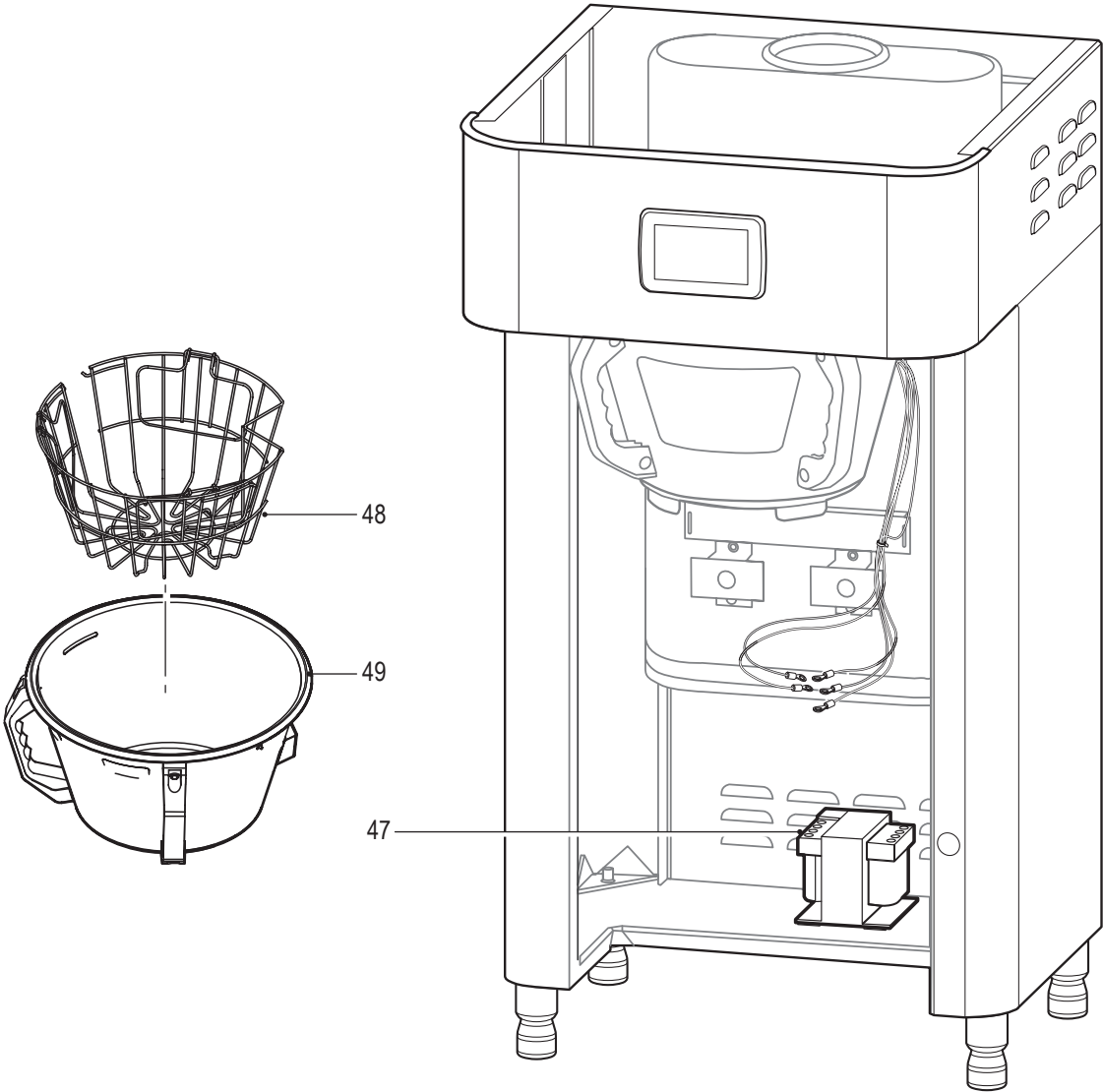
## Parts List

### Top Wrap

Item №	Part №	Description
37	WC-589-101*	TRANSFORMER, 120/230VAC-24VAC 4.8VA W/LEADS
38	WC-588*	NOISE, EMI FILTER 250VAC 20A
39	WC-8559*	RELAY, SOLID STATE 40A W/INTEGRATED HEATSINK
40	WC-2977-101K	KIT,SPRAYHEAD FITTING PLASTIC
41	WC-1516	CIRCUIT BREAKER, 2-POLE 20A/250VAC
42	WC-2471*	ELBOW, SILICONE
43	WC-14045-101	CURRENT SENSOR ASSY G4
44	WC-12012*	VALVE, DUMP .50 INCH 120VAC 50-60HZ
45	WC-5350	TUBE, SILICONE .50 ID x .75 OD
46	WC-2402P	ELBOW, 3/8"FL x 3/8" NPT PLATED

\* SUGGESTED PARTS TO STOCK

**Illustrated Parts**  
**OMGS16 & METAL**  
**BREW CONE**



**Parts List**  
**Transformer**  
**and Metal Brew**  
**Cone**

Item №	Part №	Description
47	WC-594-101	TRANSFORMER, 250VA, 208/230/400/460/575VAC TO 24/115/230VAC <b>OMGS16</b>
48	WC-3394	BASKET, WIRE ASSY <b>NON-ROTATE OPTIONAL</b>
49	WC-3395	BREW CONE WITH HANDLES <b>NON-ROTATE OPTIONAL</b>

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## Cleaning the Coffee Brewer

Regular cleaning and preventive maintenance is essential in keeping your coffee brewer looking and working like new.



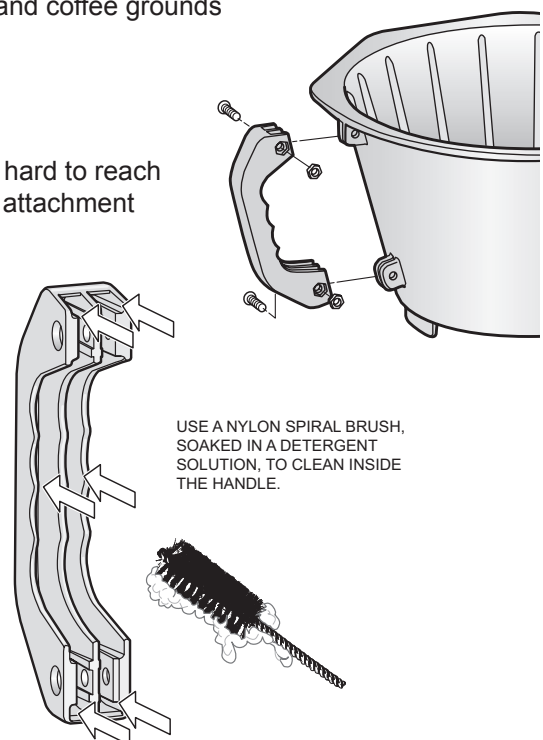
**CAUTION** – Do not use cleansers, bleach liquids, powders or any other substance containing chlorine. These products promote corrosion and will pit the stainless steel. **USE OF THESE PRODUCTS WILL VOID THE WARRANTY.**

1. Wipe the exterior surfaces with a cloth soaked in the cleaning solution. Scrub off coffee spots, spills, or coffee grounds.
2. Remove the brew cone and clean. Rinse and dry the brew cone.
3. With the brew cone removed, wipe the spray head area and the area surrounding the spray head with a clean moistened cloth. Dry the area.
4. Rub a stainless steel polish on the outside surfaces of the brewer cabinet as a protection for the metal.

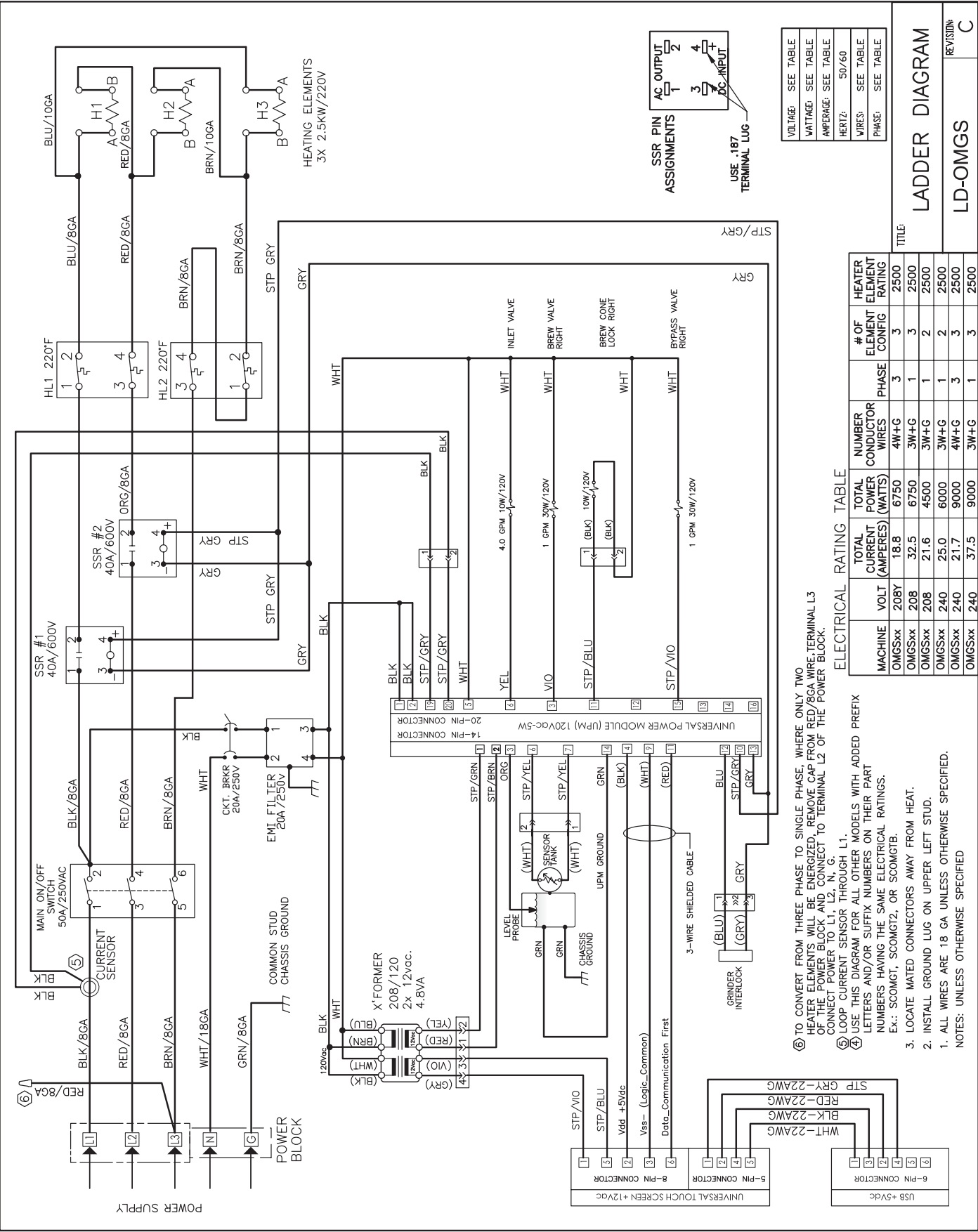
## Cleaning the Non-Metal Brew Cone

Once a week clean the brew cone and handle. Prepare a mild solution of dish washing detergent and warm water.

1. Use a nylon brush soaked in cleaning solution to remove coffee oils and coffee grounds within the brew cone. Brush between the filter suspending ribs.
2. Disassemble the two handles from the brew cone for cleaning.
  - a. Use a slotted screwdriver to remove the four slotted screws.
  - b. Take a nylon brush soaked in cleaning solution to brush out the hard to reach recessed, inside part of the handle. Pay special attention to the attachment channels of the handle.
  - c. Rinse the handles and the brew cone to remove all detergent residue.
3. Dry the brew cone and handle.
4. Assemble handles onto the brew cone and return it to the brewer.

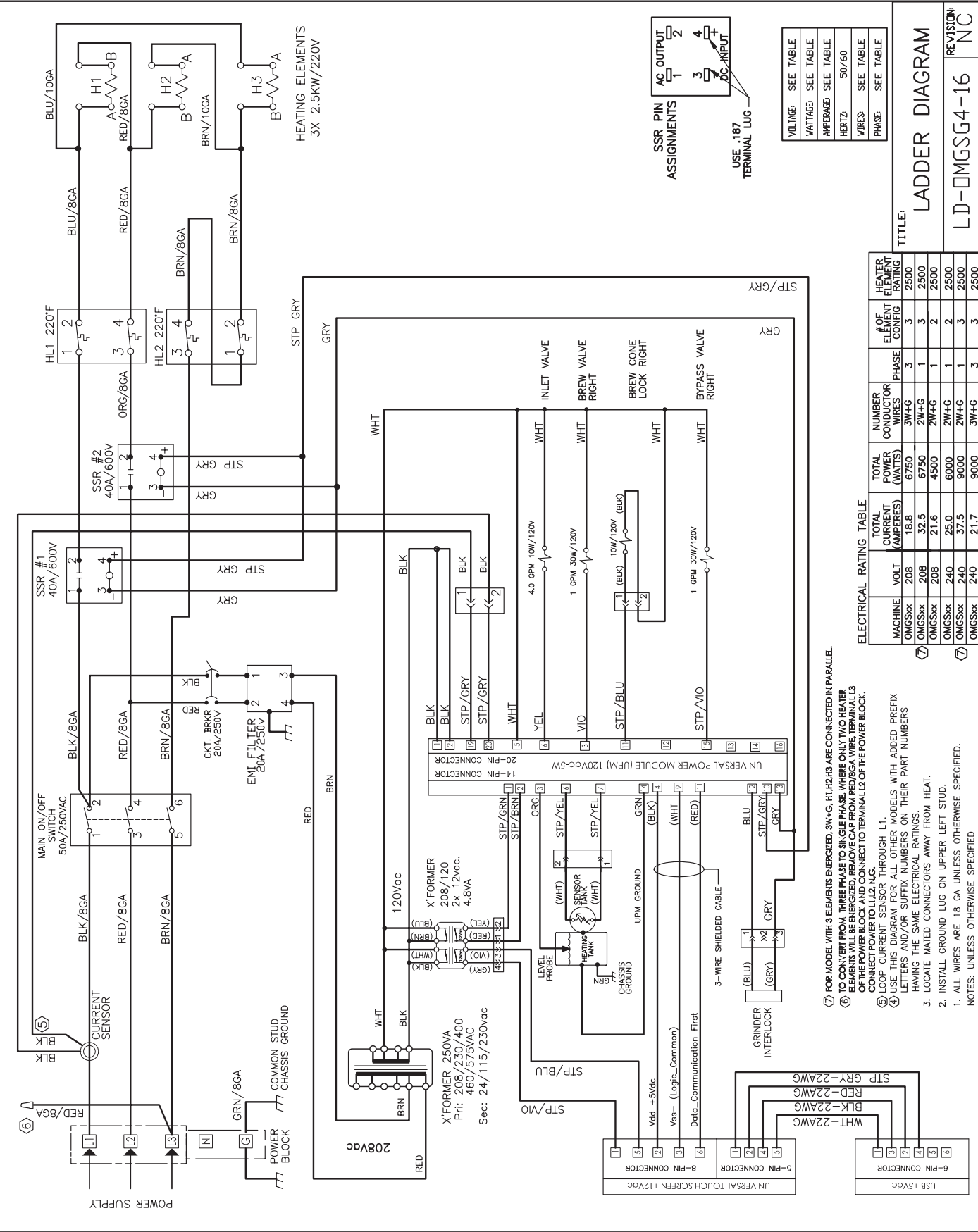


Electrical Schematic – OMGS

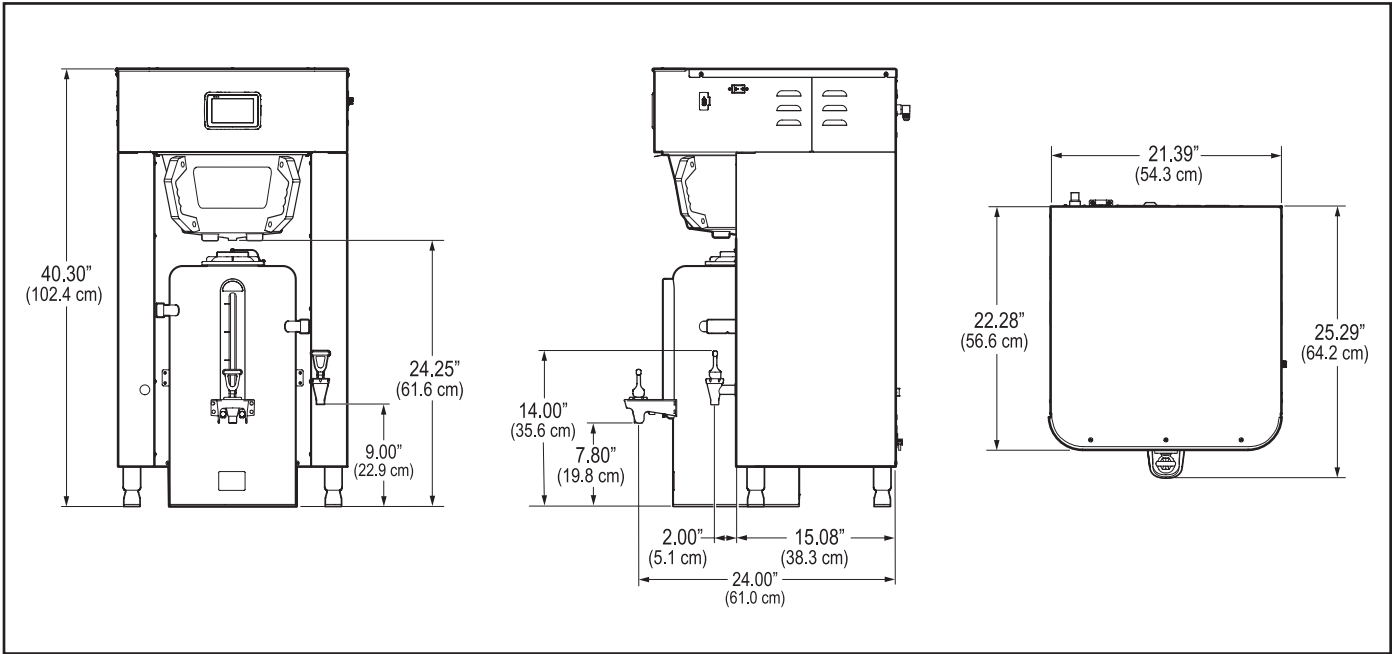




Electrical Schematic – OMGS16



# Rough-In Drawing



## Product Warranty Information

The Wilbur Curtis Company certifies that its products are free from defects in material and workmanship under normal use. The following limited warranties and conditions apply:

3 Years, Parts and Labor, from Original Date of Purchase on digital control boards.

2 Years, Parts, from Original Date of Purchase on all other electrical components, fittings and tubing.

1 Year, Labor, from Original Date of Purchase on all electrical components, fittings and tubing.

Additionally, the Wilbur Curtis Company warrants its Grinding Burrs for Forty (40) months from date of purchase or 40,000 pounds of coffee, whichever comes first. Stainless Steel components are warranted for two (2) years from date of purchase against leaking or pitting and replacement parts are warranted for ninety (90) days from date of purchase or for the remainder of the limited warranty period of the equipment in which the component is installed.

All in-warranty service calls must have prior authorization. For Authorization, call the Technical Support Department at 1-800-995-0417. Effective date of this policy is April 1, 2003.

Additional conditions may apply. Go to [www.wilburcurtis.com](http://www.wilburcurtis.com) to view the full product warranty information.

### CONDITIONS & EXCEPTIONS

The warranty covers original equipment at time of purchase only. The Wilbur Curtis Company, Inc., assumes no responsibility for substitute replacement parts installed on Curtis equipment that have not been purchased from the

Wilbur Curtis Company, Inc. The Wilbur Curtis Company will not accept any responsibility if the following conditions are not met. The warranty does not cover and is void under the following circumstances:

- 1) **Improper operation of equipment:** *The equipment must be used for its designed and intended purpose and function.*
- 2) **Improper installation of equipment:** *This equipment must be installed by a professional technician and must comply with all local electrical, mechanical and plumbing codes.*
- 3) **Improper voltage:** *Equipment must be installed at the voltage stated on the serial plate supplied with this equipment.*
- 4) **Improper water supply:** *This includes, but is not limited to, excessive or low water pressure, and inadequate or fluctuating water flow rate.*
- 5) **Adjustments and cleaning:** *The resetting of safety thermostats and circuit breakers, programming and temperature adjustments are the responsibility of the equipment owner. The owner is responsible for proper cleaning and regular maintenance of this equipment.*
- 6) **Damaged in transit:** *Equipment damaged in transit is the responsibility of the freight company and a claim should be made with the carrier.*
- 7) **Abuse or neglect (including failure to periodically clean or remove lime accumulations):** *Manufacturer is not responsible for variation in equipment operation due to excessive lime or local water conditions. The equipment must be maintained according to the manufacturer's recommendations.*
- 8) **Replacement of items subject to normal use and wear:** *This shall include, but is not limited to, light bulbs, shear disks, "O" rings, gaskets, silicone tube, canister assemblies, whipper chambers and plates, mixing bowls, agitation assemblies and whipper propellers.*
- 9) **Repairs and/or Replacements** *are subject to our decision that the workmanship or parts were faulty and the defects showed up under normal use. All labor shall be performed during regular working hours. Overtime charges are the responsibility of the owner. Charges incurred by delays, waiting time, or operating restrictions that hinder the service technician's ability to perform service is the responsibility of the owner of the equipment. This includes institutional and correctional facilities. The Wilbur Curtis Company will allow up to 100 miles, round trip, per in-warranty service call.*

**RETURN MERCHANDISE AUTHORIZATION:** *All claims under this warranty must be submitted to the Wilbur Curtis Company Technical Support Department prior to performing any repair work or return of this equipment to the factory. All returned equipment must be repackaged properly in the original carton. No units will be accepted if they are damaged in transit due to improper packaging. **NO UNITS OR PARTS WILL BE ACCEPTED WITHOUT A RETURN MERCHANDISE AUTHORIZATION (RMA). RMA NUMBER MUST BE MARKED ON THE CARTON OR SHIPPING LABEL.** All in-warranty service calls must be performed by an authorized service agent. Call the Wilbur Curtis Technical Support Department to find an agent near you.*

ECN 16016 . 7/16/14@10.4 . rev A



**WILBUR CURTIS CO., INC.**

6913 Acco St., Montebello, CA 90640-5403 USA

Phone: 800/421-6150 Fax: 323-837-2410

Technical Support Phone: 800/995-0417 (M-F 5:30A - 4:00P PST)

Email: [techsupport@wilburcurtis.com](mailto:techsupport@wilburcurtis.com)

Web Site: [www.wilburcurtis.com](http://www.wilburcurtis.com)