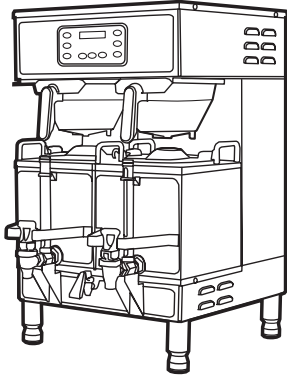




WILBUR CURTIS Co., Inc. Service Manual – GEMTS



Model Included:
■ GEMTS

IMPORTANT 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 IMPORTANT: Equipment to be installed to comply with applicable federal, state, or local plumbing/electrical codes having jurisdiction.

IMPORTANT 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 3 Unit is Factory Pre-Set and Ready to Go Right from the Box.

Following are the Factory Settings for your G3 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 1 GPM)
- Electrical: See attached schematic for standard model or visit 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 on 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 one gallon 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.



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 backflow protection to comply with applicable federal, state and local codes.
3. Water pipe connections and fixtures directly connected to a portable 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. Once power has been supplied to the unit, flip the toggle switch to the 'ON' position (located on the rear of the unit), the water tank will begin to fill. When the water level in the tank reaches the probe, the heating element(s) will turn on.
5. Water in the heating tank will require approximately a half hour before reaching operating temperature (factory setting of 200°F). Where applicable, turn on the Universal Control Module (UCM). When the unit reaches operating temperature, it will display "READY TO BREW".

ISO 9001:2008

Wilbur Curtis Co., Inc.
Montebello, CA 90640
Tel: (323) 837-2300
www.wilburcurtis.com

QUICK START

Your Curtis Generation 3 System is Factory Pre-Set for Optimum Performance.

After connection to water and power; the rear toggle switch must be on. You will hear a beep, indicating power is available to the UCM (Universal Control Module).

The control displays **WILBUR CURTIS**. Press ON/OFF button and the screen will display **<GEMINI TWIN>
WILBUR CURTIS**.

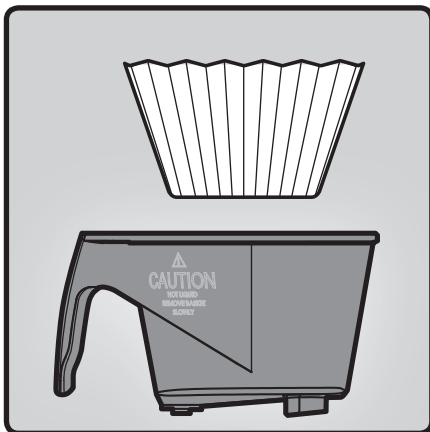
After three seconds, **WILBUR CURTIS
FILLING...** is displayed.

Water will fill the tank (approximately 2-3 minutes depending on water flow rate). When the proper level is reached **WILBUR CURTIS
HEATING...** will appear on the screen. It takes approximately 20 minutes to reach set point temperature of 200°F.

Control will display **WILBUR CURTIS
READY TO BREW** when temperature reaches the set point (200°F); unit is at brewing temperature.

Brewing Instructions

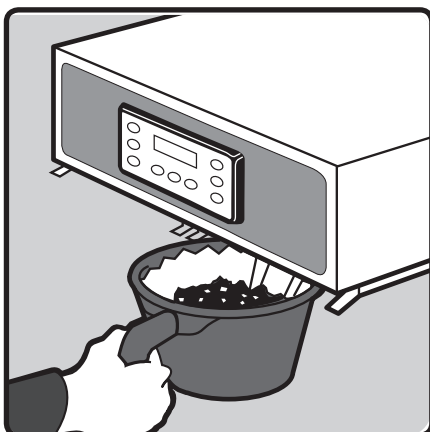
1. Brewer should be ON (Confirm at rear toggle switch, then press the ON/OFF button). The UCM screen should read Ready-to-Brew. If connected to an InterLock grinder. Grinder should be on.
2. Place an empty Satellite under the brewcone and press the warmer button to pre-heat the Satellite.



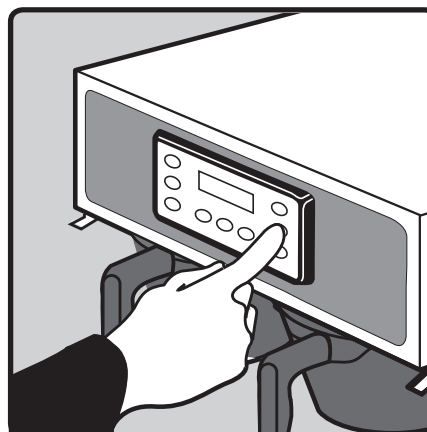
3. Place a clean filter into the brew cone.



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



5. Transfer filled brew cone to the brew rails.



6. Select and press desired brew button. Brewing will begin immediately.

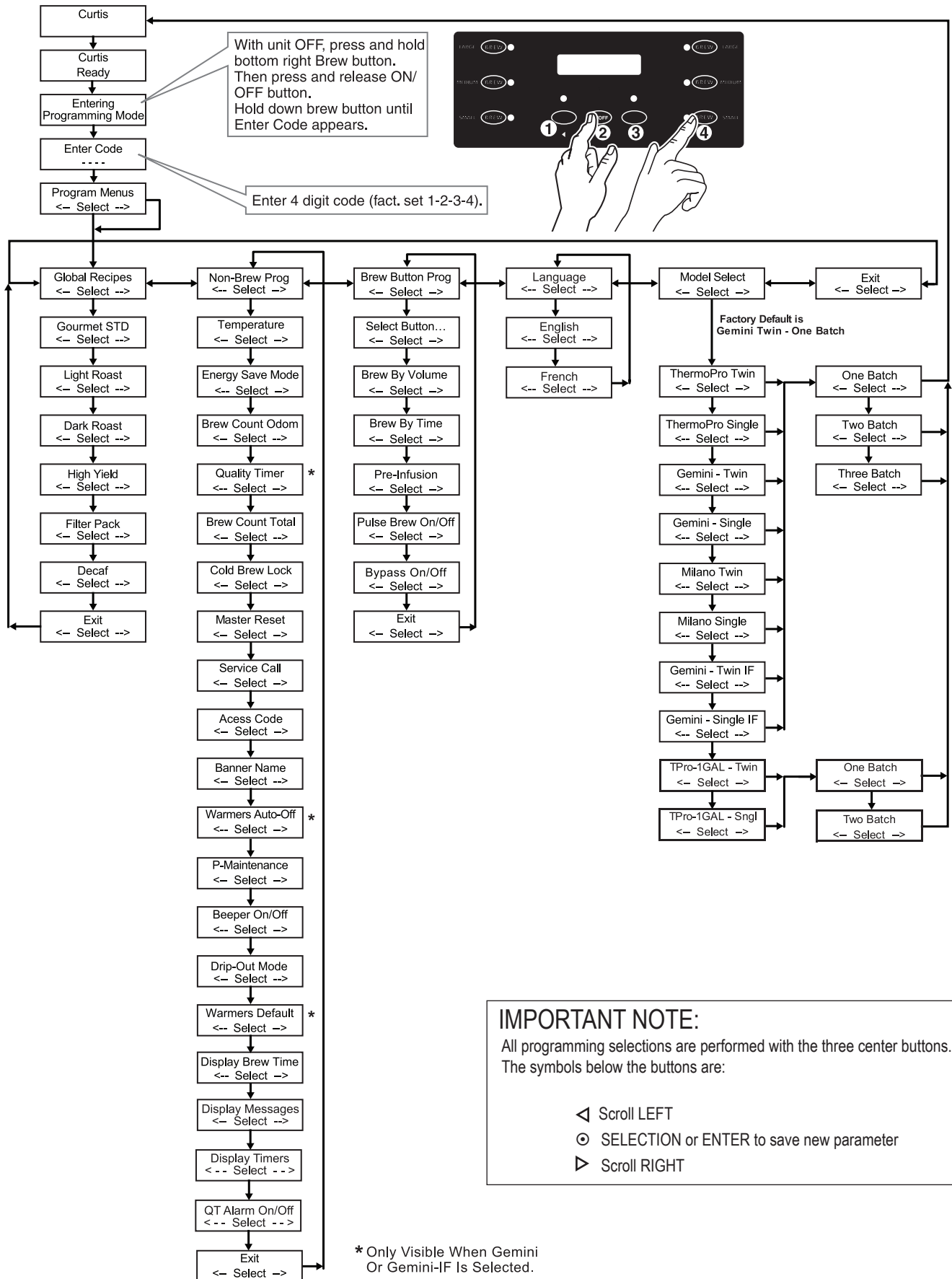


WARNING

TO AVOID
SCALDING,

Do not remove brew
cone while brew
light
is flashing.

Program Menu Tree



Program Menus GEMTS Brewer

Program Menus

From **Program Menus** press > display will show the next feature Global Recipes.

GLOBAL RECIPES

Global Recipes

Global Recipes (Factory set to Gourmet STD)

Press \odot to select. If selected, press < or > to chose a recipe based on the type of coffee being brewed. Selections are Gourmet STD, Light Roast, Dark Roast, High Yield, Filter Pack, or Decaf. Press \odot to select the desired recipe.

NON-BREW PROGRAMMING

Temperature

Temperature (Factory set to 200°F)

Press \odot to Select. Press < or > to move to desired temperature and then \odot to set. Temperature is programmable from 170°F to 206°F in 2-degree increments.

Energy Save Mode

Energy Save Mode (Factory set to OFF)

Press \odot to Select, < or > ON, OFF or ON 140°F , \odot to set. When in ON, unit will automatically shut off 4 hours from last brew. When feature is OFF, unit does not utilize the energy saving mode.

In the ON 140°F position, temperature lowers to 140°F, if unit has not brewed in 4 hours. This feature will save energy by maintaining a lower temperature in the tank in periods of non-operation.

Brew Count Odom

Brew Count Odom

Press \odot to display total brew cycles. Press EX or Reset.

Quality Timer

Quality Timer (Factory set to OFF)

Press \odot to select, press < or > to choose desired setting. Range 20 min – 240 min, in 10 minute increments. The timer does two things. It turns on and off a red indicator light and turns off the warmer element. The indicator light signals when a predetermined time has expired. The warmer shuts off 12 hours after the indicator light comes on.

Brew Count Total

Brew Count Total

Press \odot to Select, Shows total gallons and total brew cycles on the unit. Cannot be reset.

Cold Brew Lock

Cold Brew Lock . . . (Factory set to 5°)

Press \odot to select, < or > to select desired setting (CBL 5, 15 or OFF), \odot to set.

The Cold Brew Lock feature allows the brewer to brew at three different temperature levels from the actual set point. The first setting is within 5 degrees of set point, next is within 15 degrees of set point, OFF is within 30 degrees of set point for the Ready to Brew message, however, it will brew at any temperature.

Master Reset

Master Reset

Press \odot to display Are You Sure?

Then < for Yes, > for No. Brewer factory defaults are then reset.

Service Call

Service Call (Phone number Factory set to 1-800-000-0000 X0000)

Press \odot to display number and change number or < to move place and EX to exit when complete. This number will be displayed during a Heating system SENSOR ERROR or during a WATER ERROR.

Access Code

Access Code (Factory set to 1-2-3-4)

Press \odot to display and change these numbers. The number can be set from 1 to 4. The range is from 1111 to 4444. Press < to move place and EX to exit when complete.

Banner Name

Banner Name (Factory set to CURTIS)

Press \odot to display letters and change letters or < to move place and EX to exit when complete

This feature allows up to 14 letters to be programmed for company name or regional name. Programming all blanks disables Banner Name. If programmed, Banner Name is displayed every 5 sec. on and off.

Warmers Auto-Off

Warmers Auto – Off (Factory setting – Disabled)

Press \odot to Select. Press < or > to adjust from 1 hour to 12 hours. This feature advances in 1 hour increments.

Program Menus GEMTS Brewer

P-Maintenance

P-Maintenance (Factory set to OFF)

Press **⊙** to Select, Set gallons brewed to indicate P-Maintenance. Press < or > to adjust from Off to 3000 gallons. This feature advances in 100 gallon increments. Press **⊙** to exit.

Beeper On/Off

Beeper On/Off (Factory set to ON)

Press **⊙** to display ON or OFF. Pressing either < or > toggles between on and off. **⊙** to set. When ON, this feature allows you to hear a short beep each time a button is pressed.

Drip-out Mode

Drip-out Mode (Factory set to 2 minutes)

Press **⊙** to Select. Press < or > to move to desired time. Settings are OFF, 1, 2, 3, 4 and 5 minutes. Press **⊙** to Select time.

Warmers Default

Warmers Default (Factory setting - MED)

Press **⊙** to Select. Press < or > to adjust from OFF, HIGH, MED or LOW. Power setting for HIGH is 100W watts MED is 82 watts. LOW is 66 watts.

Displ. Brew Time

Displ. Brew Time (Factory set to ON)

Press **⊙** to display ON or OFF. Pressing either < or > toggles between on and off. After Display Brew Time an EXIT screen will return you to Non-Brew Prog.

Displ. Messages

Displ. Messages (Factory set to ON)

Press **⊙** to display ON or OFF. Pressing either < or > toggles between on and off. When this feature is turned on, a screen message is displayed "Rinse Server Before Brewing".

BREW BUTTON PROGRAMMING

Brew By Volume

Brew by Volume (Factory settings: LARGE 200oz ±8oz. MEDIUM 132oz±4oz. SMALL 64oz±4oz.)

Press **⊙** to Select. Display will ask you to select a brew button, Large, Medium or Small. Press the desired brew button to begin. When desired volume is reached press the same brew button to stop the flow. Now the volume has been set.

Brew By Time

Brew by Time (Factory settings: LARGE 5min-25sec. MEDIUM 3min-32sec. SMALL 1min-52sec.)

Next item in the sequence is Brew by Time. Press **⊙** to Select to change the brew time. Display will now show the current time. By pressing < or > you can toggle back and forth from minutes to seconds to exit (ex). Change the time or set and exit by pressing the **⊙** button.

Pre-infusion

Pre-Infusion (Factory Disabled)

Press **⊙** to Select. Current setting in seconds is displayed < to decrease or select > to increase (range from OFF to 10 through 60 seconds), **⊙** to set.

If Pre-infusion is selected (ON), Cold Brew Lock is set within 5°F of set point and Cold Brew Lock disappears from the list of program selections. When Pre-infusion is ON, Pulse Brew disappears from the list of program selections.

Pulse Brew

Pulse Brew (Factory setting C)

Press **⊙** to select, < or > to select OFF or one of five pulse patterns (A to E) . The five Pulse Brew options help "tune" or change the coffee flavor.

Guidelines for Pulse Brew:

Filter Pack type coffees typically extract better with the **A** and **B** pulse setting.

Decaf coffees typically extract better with the **B** pulse setting.

High-Yield coffees typically extract better with the **C** pulse setting. Of course, any of the **A**, **B** or **C** settings may be used to suit your taste profile.

Settings **D** and **E** are manual pulse counts.

To exit from the Pulse Brew mode, select **0** for the time. If Pulse Brew is on, Cold Brew Lock is set within 5°F of set point and Cold Brew Lock disappears from the list of program selections. When Pulse Brew is on, Pre-infusion disappears from the list of program selections.

By-Pass

By-Pass (Factory settings: LARGE 35%. MEDIUM 10%. SMALL Off.)

Press **⊙** to display current setting. Press < or > to change settings; OFF, 5% to 50%, in 5% increments. Press **⊙** to set. By-passing some of the brew water around the coffee bed will balance the extraction of larger brews.

Language

Language (Factory set to English)

Press **⊙** to select, < or > to select language. The selections are: English or French. Press **⊙** to set. When the Language feature is changed, all screens will read the selected language.

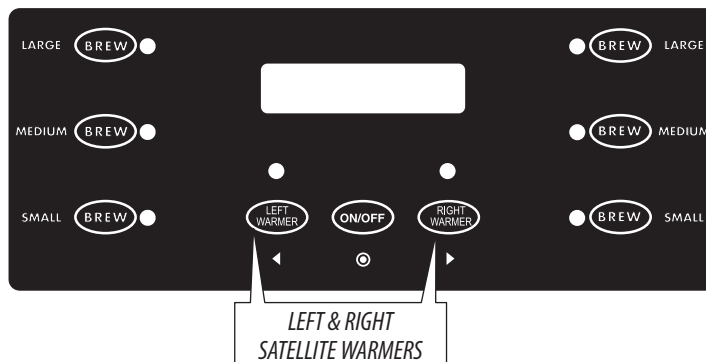
Model Select

Model Select (Factory set to Gemini-Twin IF)

Press **⊙** to select, < or > to select model. The selections are: ThermoPro-Twin, ThermoPro-Single, Gemini-Twin, Gemini-Single, Milano-Twin, Milano-Single, Gemini-Twin IF, Gemini-Single IF, Tpro-1Gal-Twin and Tpro-1Gal-Sngl. Press **⊙** to set. When the Model Select feature is changed, all settings are reset to the defaults of the newly selected model.

Warmers

The warmer, under the brewcone will turn on automatically whenever a coffee brew cycle is started. The warmers can be switched on or off at the two WARMER buttons on the control panel.



Error Message

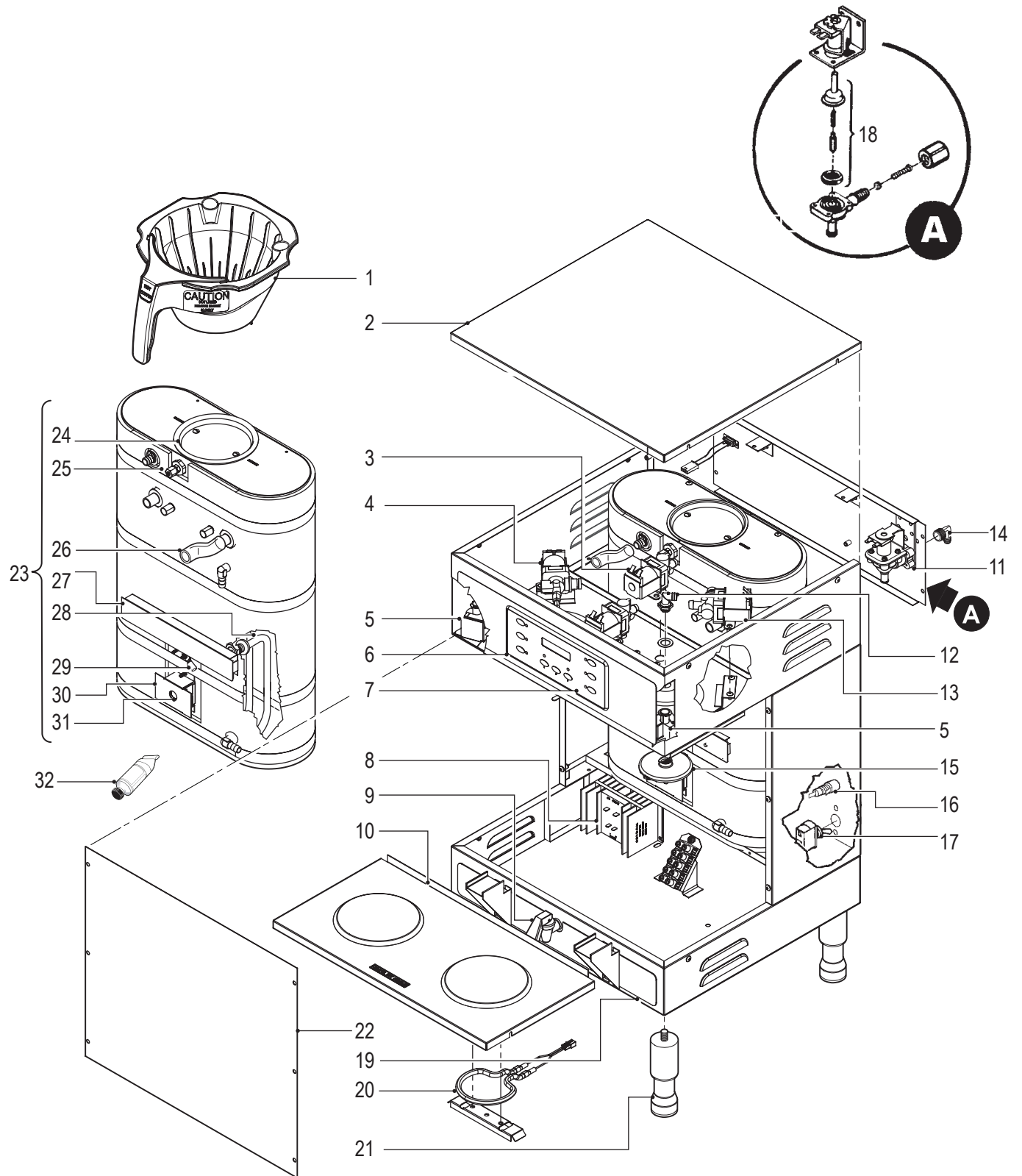
An error message will appear on the screen in the event of a malfunction under the following conditions:

1. Water Level Overflow.
2. Break in Temperature Control Circuit
3. Excess Temperature in Heating Tank

To turn off an error message, press the **⊙** button for five seconds.

ERROR CODES		
ERROR MESSAGE	DESCRIPTION	CAUSE
Water Level Error 1-(800)-000-0000	Fill run error / Overflow	The fill solenoid has either run for more than 10 minutes on the initial tank fill or 2.0 minutes in normal operation
Sensor Error 1-(800)-000-0000	Open Probe	Break in the temperature thermistor circuit.
Over Temp. Error 1-(800)-000-0000	Excess Temperature	The sensor is reading that temperature in the heating tank has risen above 210°F.

Illustrated Parts



Illustrate Parts List

ITEM №	PART №	DESCRIPTION
1	WC-3417	BREW CONE,ASSY W/SPLASH PCKT
2	WC-5421	COVER, TOP
3	WC-844-101*	KIT, VALVE BY-PASS NON-ADJUST
3A	WC-844-102	VALVE, BY-PASS, 220V NON-ADJUST
4	WC-37121 *	KIT, DUMP VALVE LEFT
5	WC-442	SOLENOID, LOCK BREWCONE RIGHT
6	WC-39395	LABEL, UCM OVERLAY DUAL TWIN
6A	WC-39440	LABEL, CONTL PANEL 3 BATCH
6B	WC-39439	LABEL, CONTL PANEL 2 BATCH
6C	WC-39438	LABEL, CONTL PANEL 1 BATCH
7	WC-37176*	KIT, UCM CONTROL MODULE
8	WC-8559	RELAY, SOLIDSTATE 40A W/HT SNK
9	WC-1809 *	FAUCET, HOT WATER
10	WC-5423	DECK ASSY NO HEATING ELEMENT
11	WC-847 *	VALVE, INLET 2 GPM 120V 10W YEL
12	WC-2977-101K	KIT,SPRAYHEAD FITTING PLASTIC
13	WC-37122 *	KIT, DUMP VALVE RIGHT
14	WC-2402P	ELBOW, 3/8"FL x 3/8" NPT PLATED
15	WC-29050	SPRAYHEAD, AFS-AMBER
16	WC-1501	FUSE HOLDER ASSY W5A FUSE
17	WC-102 *	SWITCH, TOGGLE
17A	WC-103	SWITCH, TOGGLE NON-LIT DPST
18	WC-3765L*	KIT, INLET VALVE REPAIR FOR WC-847
19	WC-39462	LABEL, BOTTOM PANEL GEMTS
20	WC-37102*	KIT, WARMER ELEMENT
21	WC-3528 *	LEG, 4" ADJUST 3/8-16 THRD
22	WC-5829	COVER, FRONT
23	WC-62033	TANK, COMPLETE GEMTS W/ULT FIT
24	WC-37008*	KIT, TANK LID ROUND
25	WC-5527K*	KIT, PROBE WATER LEVEL O-RING & NUT
26	WC-5350	TUBE, 1/2" ID x 1/8W SILICONE
27	WC-4382	GUARD, SHOCK HEATING ELEMENT
28	WC-934-04*	ELEMENT HEATING 2.5KW 220V
29	WC-1438-101*	SENSOR, HEATING TANK
30	WC-43055	GUARD, SHOCK RESET T-STAT
31	WC-522 *	THERMOSTAT, RESET
32	WC-5231 *	COMPOUND, SILICONE

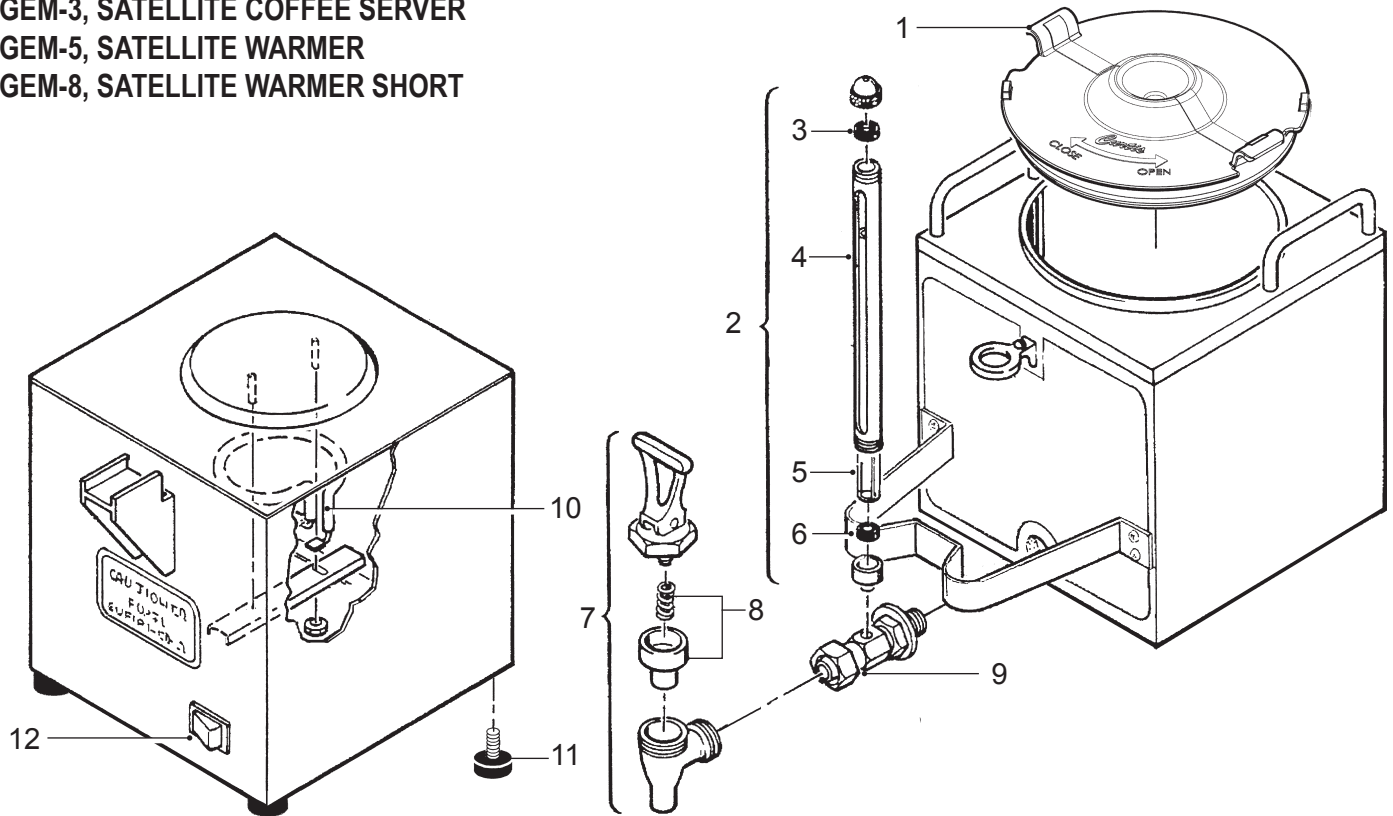
* Recommended parts to stock.

Illustrated Parts List

GEM-3, SATELLITE COFFEE SERVER

GEM-5, SATELLITE WARMER

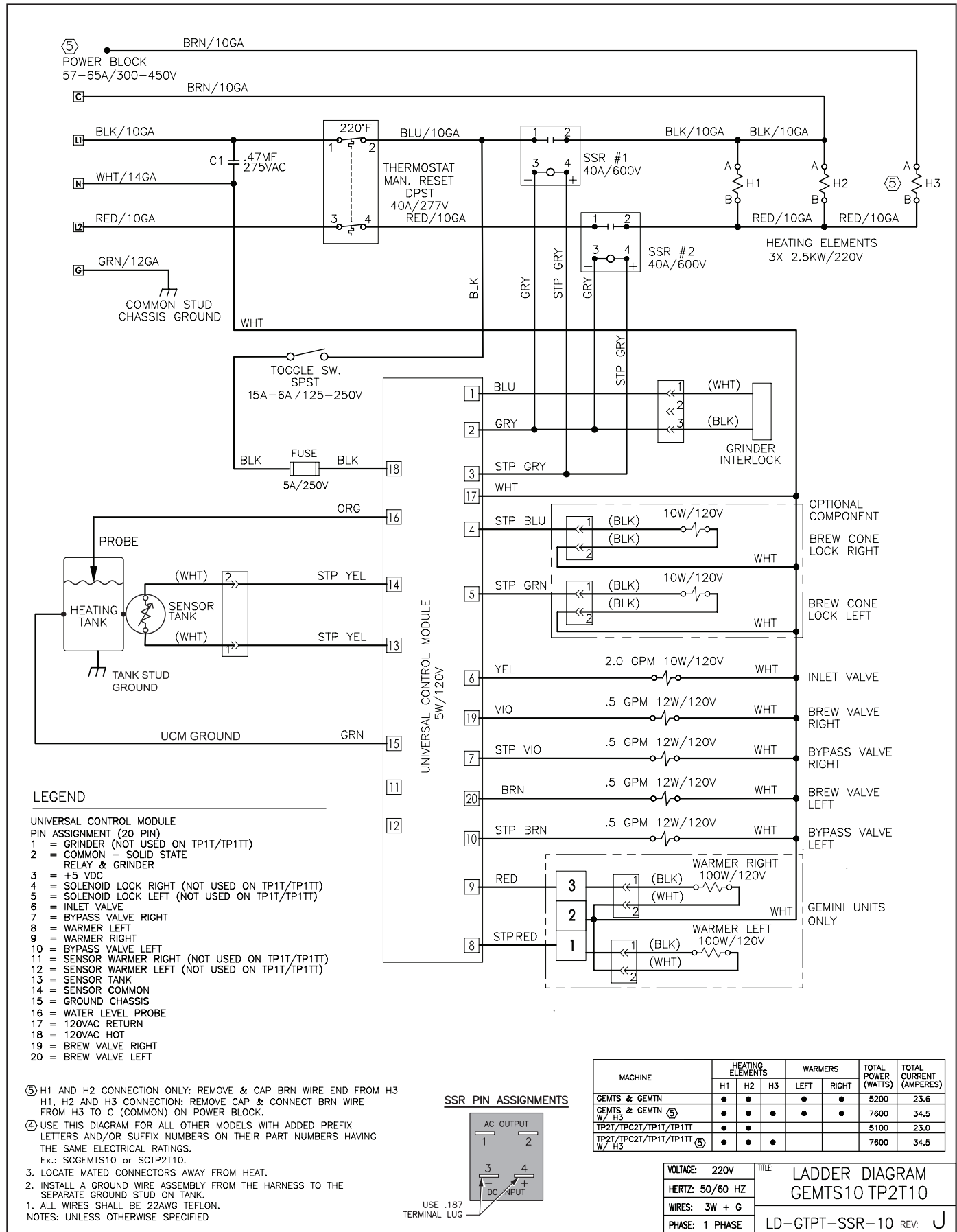
GEM-8, SATELLITE WARMER SHORT



ITEM No	PART No	DESCRIPTION
1	WC-5622	LID, SATELLITE PLASTIC GEM3
1A	WC-3307	LID, SATELLITE STAINLESS (OLDER UNITS)
2	WC-2102	GAUGE GLASS ASSEMBLY 8"
3	WC-2005*	WASHER, SHIELD CAP 1/8"
4	WC-2010C	SHIELD, 8 INCH GAUGE GLASS
5	WC-2025*	GAUGE GLASS, 8 INCH
6	WC-2006*	WASHER, SHIELD BASE 3/16"
7	WC-1800	FAUCET, S' NON LOCKING
7A	WC-1841	FAUCET, ESP BLACK NON-LOCKING PLASTIC
8	WC-3705*	KIT, FAUCET S' SERIES
9	WC-1901A	SHANK, FAUCET W/SHIELD BASE
9A	WC-1901A-103K*	KIT, SHANK ASSY, FAUCET W/SHIELD BASE & O-RING
10	WC-37102	KIT, WARMER ELEMENT 100W 120V (GEM-5 & GEM-8)
11	WC-3503	LEG, SCREW BUMPER 3/8"- 16 STD (GEM-5 & GEM-8)
12	WC-114R	SWITCH, ROCKER (RED) 120V SPST (GEM-5 & GEM-8)

* Recommended parts to stock.

Electrical Schematic



Cleaning the Coffee Brewer

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



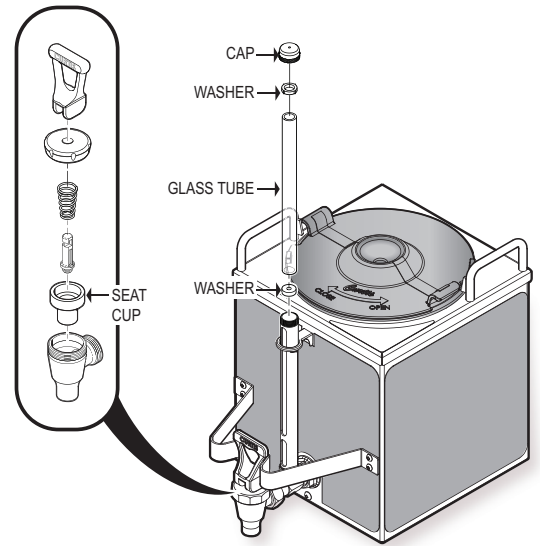
CAUTION – Do not use cleansers, bleach liquids, powders or any other substance containing chlorine. These products promote corrosion and will pit the stainless steel. USE OF THESE PRODUCTS WILL VOID THE WARRANTY.

1. Wipe exterior surfaces with a moist cloth, removing spills and debris.
2. Slide the brewcone out and clean it. Clean the sprayhead area with a moist clean cloth.
3. Rinse and dry the brewcone.
4. Drain drip tray of coffee. Wash out the drip tray. Dry the tray.
5. Rub a stainless steel polish on the outside surfaces to protect the brewer.

Cleaning the Satellite Server

To clean the Satellite components, prepare a mild solution of detergent and warm water.

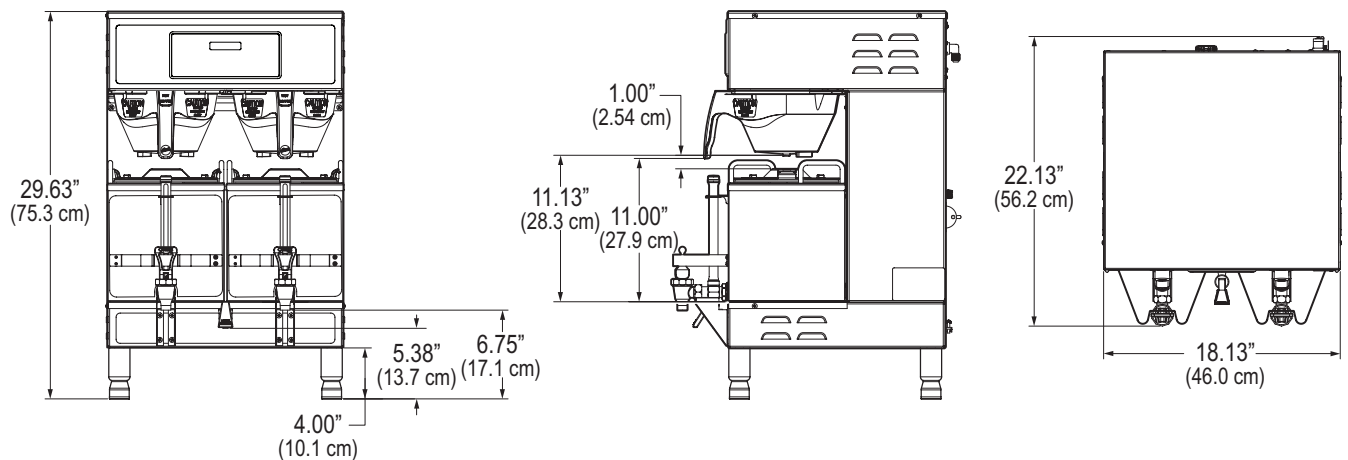
1. Remove lid from Satellite. Clean the lid at the funnel area with a spiral brush and detergent solution.
2. Rinse the lid, removing all traces of cleaning solution.
3. Unscrew the handle/bonnet assembly and remove it from the dispensing faucet.
4. Leave the silicone seat cup on the faucet stem and inspect it for wear, cracks, or hardening. Replace the seat cup if necessary.
5. Clean all parts. Thoroughly rinse with clear warm water.
6. Dry and assemble the handle/bonnet parts. Hand-tighten the assembly onto the faucet.
7. Remove the gauge glass tube by unscrewing the gauge glass cap.
8. Clean the gauge glass tube and the two washers with a gauge brush and detergent solution. Rinse with clear water. Dry the parts and assemble them onto the Satellite.



DO NOT immerse the Satellite in water or any other liquid.

9. Clean inside of the Satellite. Remove coffee residue with the detergent solution.
10. Thoroughly rinse out the Satellite with clear warm water.

Rough-In Drawing



Product Warranty Information

The Wilbur Curtis Co., Inc. 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 Co., Inc. 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 to view the full product warranty information.

CONDITIONS & EXCEPTIONS

The warranty covers original equipment at time of purchase only. The Wilbur Curtis Co., Inc., Inc., assumes no responsibility for substitute replacement parts installed on Curtis equipment that have not been purchased from the Wilbur Curtis Co., Inc. The Wilbur Curtis Co., Inc. 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 Co., Inc. 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 Co., Inc. 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 16177 . 9/30/14@10.3 . rev L



WILBUR CURTIS CO., INC.

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