



WILBUR CURTIS COMPANY, INC.

Service Manual – CAFEOTAT3

Models Included

- ◆ CAFEOTAT3



WARNING HOT LIQUID,
Scalding may occur.
Avoid splashing.



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



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

Important Safeguards/Conventions

This appliance is designed for commercial use. Any servicing other than cleaning and maintenance should be performed by an authorized Wilbur Curtis service center.

- Do NOT immerse the unit in water or any other liquid
- To reduce the risk of fire or electric shock, do NOT open top panel. No user serviceable parts inside. Repair should be done only by authorized service personnel.
- Keep hands and other items away from hot parts of unit during operation.
- Never clean with scouring powders or harsh implements.

Conventions



WARNINGS – To help avoid personal injury



Important Notes/Cautions – from the factory



Sanitation Requirements

Your Curtis G3 System is Factory Pre-Set and Ready to Go... Right from the Carton.

Following are the Factory Settings for your Cafe System:

- **Tank Temperature = 190°F**
- **Flavor Controls= Set at 90%**
- **Dispensing Mode Set for Manual Dispensing**

Generally there will never be a reason to change your programming. However, should you need to make slight adjustments to meet your dispensing needs, programming instructions are provided later in this manual.

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.

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

SETUP STEPS

The unit should be level (left to right and front to back), located on a solid counter top. Connect a water line from the water filter to the brewer. **NOTE:** Some type of water filtration device must be used to maintain a trouble-free operation. (In areas with extremely hard water, we suggest that a sedimentary and taste & odor filter be installed.) This will prolong the life of your dispensing system and enhance cappuccino product quality.



NSF International requires the following water connection:

1. A quick disconnect or additional coiled tubing (at least 2x the depth of the unit) so that the machine can be moved for cleaning underneath.
2. In some areas an approved backflow prevention device may be required between the CAFEOTAT3 and the water supply.

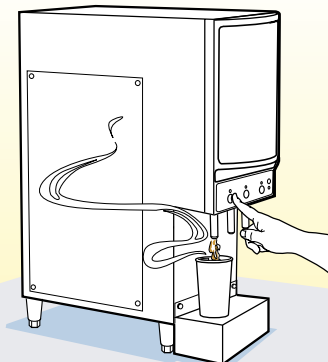
1. Connect a water line from your facility to the 1/4" flare water inlet fitting of the valve, behind the machine. Water volume going to the machine should be stable. Use tubing sized sufficiently to provide a minimum flow rate of one gallon per minute.
2. Plug the power cord into an electrical outlet rated at 20A.
3. Switch on the toggle switch, behind the unit, that runs power to the components in the machine. The display window and Stop/Wash light on the front door will activate and the heating tank will start to fill.
4. Water in the heating tank will require about ½ hour to reach operating temperature (factory setting of 190°F). At this time the Ready LED will light.
5. Remove and fill the canisters with oatmeal mixes.

OPERATION INSTRUCTIONS

1. Choose a flavor. Place your cup under the spout beneath the desired flavor.
2. Press and release the dispensing button for this flavor.
3. The cup will fill automatically and stop when full.


FILL CANISTERS DAILY

1. Open the front door to access the product canisters.
2. Removed the canisters from the unit for filling. Pull the canister towards you while lifting slightly from it's place on the canister shelf.
3. Return the canisters to thier position within the machine. Align the gear socket behind the canister with the gear on the auger motor.



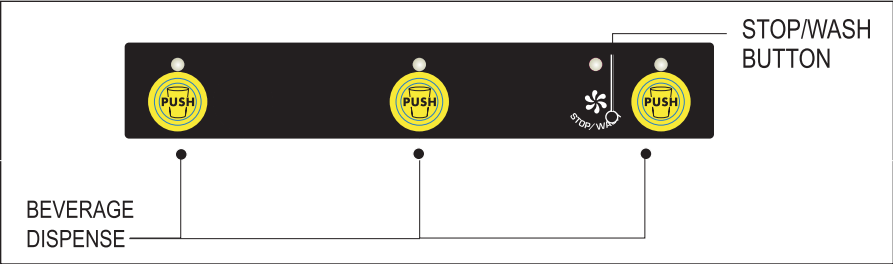
Steps to Programming

Your Curtis Cafe System is Factory Pre-Set for Optimum Performance. Usually this Does Not Change.



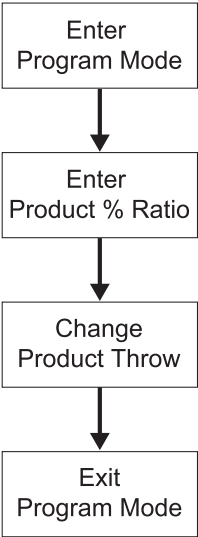
WARNING HOT LIQUID, Scalding may occur. Avoid splashing. Place an empty container under the dispensing nozzles while programming.

All programming is performed at the control panel (illustration, right). The **STOP/WASH BUTTON** has several functions. This button is used to stop a Portion Control dispense cycle. It is used to dispense hot water, and it is used to enter the programming functions.



Product % Ratio

This controls the amount of dry product that is metered from the hoppers. This can be programmed from 10% to 100% of the capacity of the dispensing system. By counting LED flashes you can determine the product % ratio currently set for this dispense button (see table).



Enter Program Mode – press and hold **STOP/WASH** for about ten [10] seconds until all lights start blinking.

To program Product % Ratio, press and hold the **PUSH** button for approximately one second, then release. The current setting will be indicated by LED flashes.

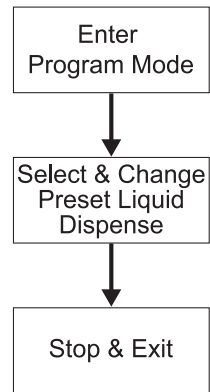
To change the product throw, press and hold the button until light starts quick flashing. Each quick flash increases the amount by 5%. Release the button when the desired throw amount is achieved. After releasing the button, the number of blinks represent the new setting.

To exit the Powder Dispensing Mode, press the **PUSH** button once again to set and exit product ratio.

PRODUCT RATIO	
Number of Flashes	Volume
1	10%
2	20%
3	30%
4	40%
5	50%
6	60%
7	70%
8	80%
9	90%
10	100%

Portion Control Dispensing Mode

This program adjustment allows you to setup the machine to automatically dispense a preset volume of oatmeal product. When the user makes a **PUSH** button selection, the unit dispenses only the volume of product programmed by the Portion Control Dispensing Mode. By setting the unit for Portion Control Dispensing, you have locked out the manual dispense feature.



Enter Program Mode – press and hold **STOP/WASH** for about ten [10] seconds until all lights start blinking.

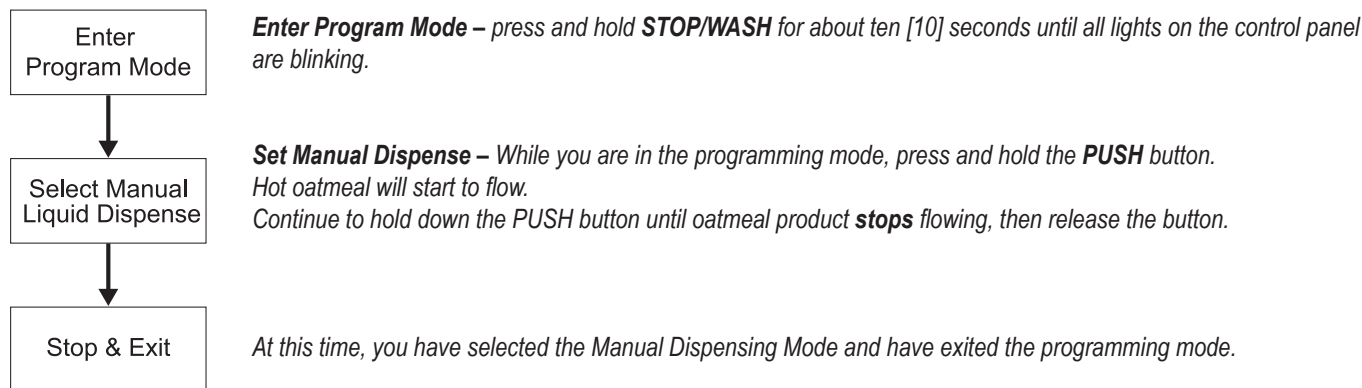
To select & change the Portion Control Dispensing Volume – while in the programming mode, press and hold the selected **PUSH** button until the hot oatmeal begins to flow, then release. The timing starts when product begins to flow.

Stop & Exit – When 3/4 of the cup volume is achieved, press the **PUSH** button once again to stop the dispensing. You have now set the timing for this button and have exited the programming mode. Pressing the dispense button now will provide the liquid volume that you just set. To reset the timing, you must start again by entering the programming mode.

Manual Dispensing Mode

This feature sets up the Café PC unit to dispense product only as long as the user holds down the selected **PUSH** button.

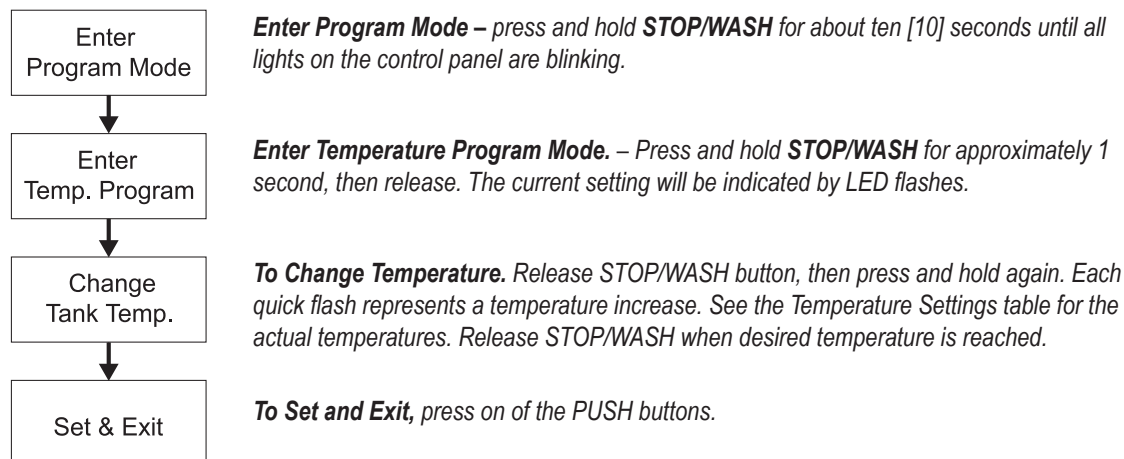
As soon as the user stops pressing the button, product stops flowing into the cup. Setting the unit for Manual Dispense will turn off the Portion Control Dispense Mode.



Confirm/Reset Temperature (Factory set at 190°F)


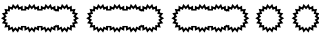

These features allow you to check the heating tank temperature or change the temperature if desired. The temperature in the tank is programmable from 80°F, in 5 degree increments up to 140°F, then temperature will jump 45 degrees to 185°F, then resume 2 degree increments up to a maximum 204°F (see Temperature Settings table, right).

To Change Tank Temperature



Temperature Settings	
Number of Blinks	Temperature
1	80°F
2	85°F
3	90°F
4	95°F
5	100°F
6	105°F
7	110°F
8	120°F
9	140°F
10	185°F
11	190°F
12	192°F
13	194°F
14	196°F
15	198°F
16	200°F
17	202°F
18	204°F

ERROR CODES: Curtis Cafe systems contain various safety features in the electronic circuitry that shut down the functions of the unit in the event of a system failure. Error codes are signalled by the **READY** light blinking one of three patterns:

	WATER LEVEL ERROR – 3 LONG AND 1 SHORT When this code is seen on the control panel, there is a malfunction in the water level control system.
	TEMPERATURE SENSOR ERROR – 3 LONG AND 2 SHORT When this light pattern is flashing on the control panel there is a system failure with the heating tank.
	COMMUNICATION ERROR – 3 LONG AND 3 SHORT This flashing light pattern indicates a communication error between the switch panel on the door and the power module.

Clean the Cafe System

Clean the Curtis Cafe system often to maintain a pleasant appearance.

- Switch off the unit at the power toggle switch, marked **CONTROL**, behind the unit.
- Wipe all exterior surfaces with a damp cloth; removing any spills, dust or debris from the unit.
- Remove the drip tray and louvered screen and wash out its contents. For hard to clean deposits, use a mild detergent solution.
- Clean around the dispensing area, wiping with a nontoxic cleaner.

Dump Valve Replacement



We recommend that you regulate the water flow in the valve **ONLY** when replacing a valve.



WARNING: As with all electrical equipment, caution must be taken to avoid electrical shock. Be sure the power cord is disconnected before removing components. The following steps will also involve working near hot surfaces.

I. Instructions for replacing a valve:

- A. Shut off the water line running into the unit.
- B. Disconnect the power cord or turn off the unit at the toggle switch behind the unit.
- C. Drain approximately $\frac{1}{2}$ to $\frac{3}{4}$ gallon of water from the tank by pressing on of the dispense buttons. This will insure that the water level is below the level of the valves. Remove the wires and water tubing from the defective valve and pull it from the silicone fitting.
- D. Before installing on the tank, make an initial adjustment with the valve off of the tank.
 1. Loosen the screw on the metal guard. Rotate away from the adjustment screw (fig. 1.).
 2. Carefully, turn flow adjustment screw clockwise all the way in (see figure 2.). Observe restrictor position. Do not overtighten.
 3. Now turn the flow adjustment screw counter clockwise three [3] turns (or $1\frac{1}{2}$ turns from the fully open position).
 4. Replace the metal guard.
 5. Install the valve on the tank, attaching wires and silicone tube. Press the valve fully into the fitting on the heating tank.



Figure 1. Adjustment

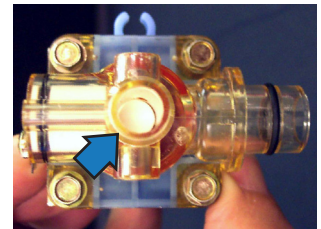
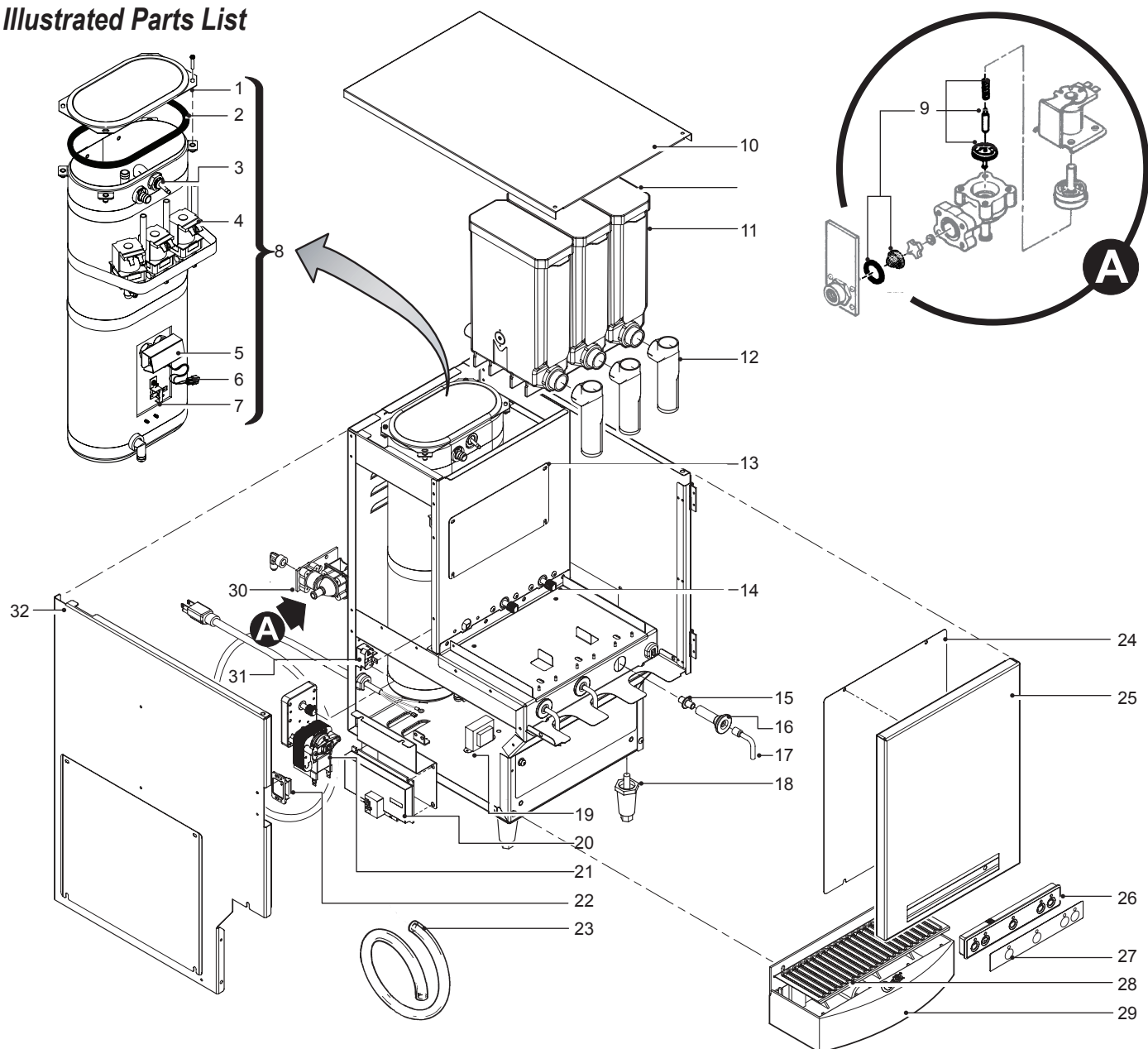


Figure 2. Restrictor Closed.

II. Dump valve, water flow adjustment:

The Water flow is preset to ensure optimum mixing and proper chamber rinsing. The valves currently installed on your unit have been set at the factory and should not require adjusting. The factory flow rate setting is 4 oz. of water in 10 seconds (or 0.4 oz./sec.).

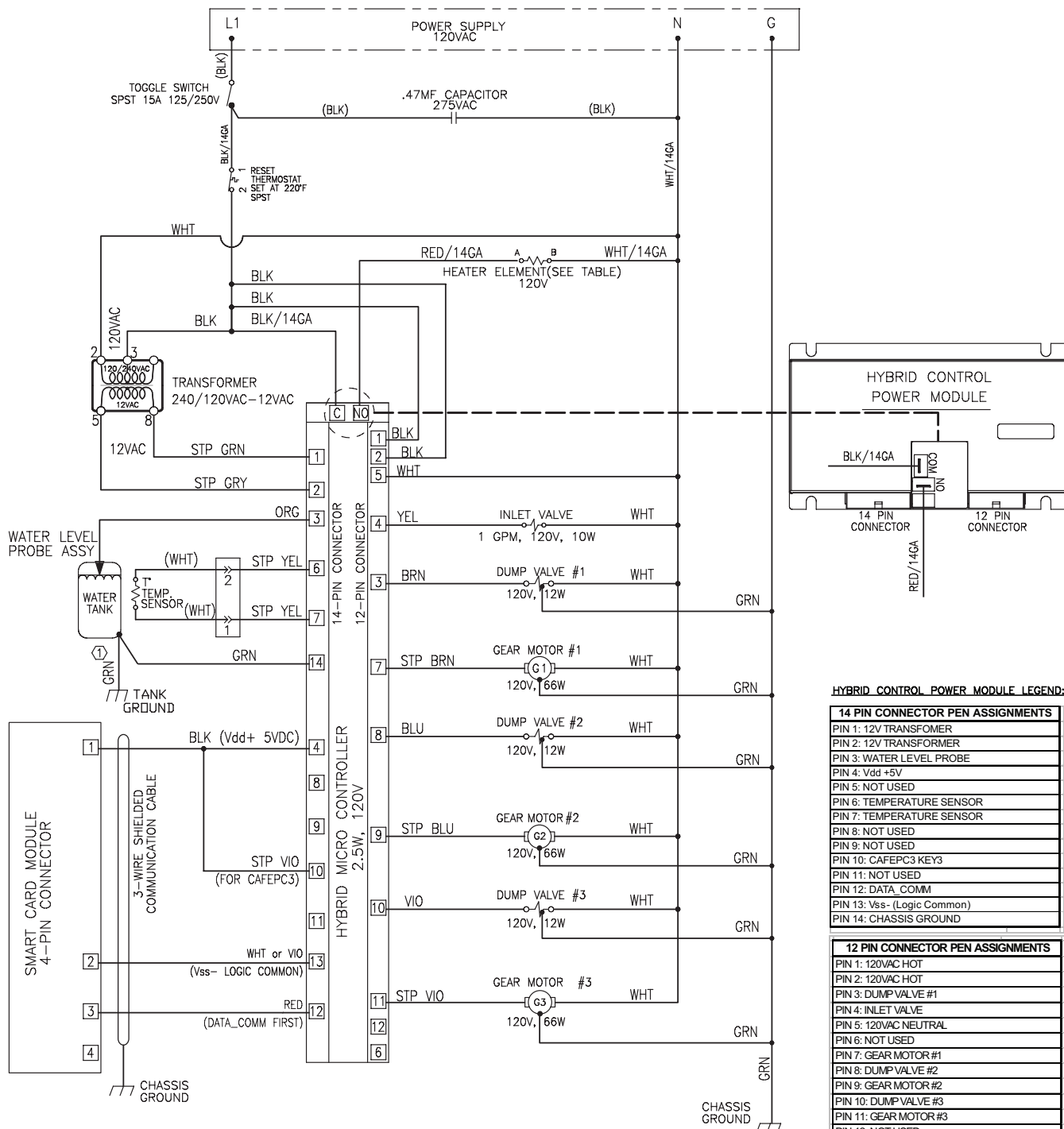
Illustrated Parts List



Item N°	Part N°	Description	Item N°	Part N°	Description
1	WC-5853-102	COVER, TOP HEATING TANK GEN USE	17	WC-53136	TUBE, DISPENSE HOT WATER
2	WC-43062 *	GASKET, TANK LID	18	WC-3504*	LEG, ADJUSTABLE BLACK
3	WC-37278 *	KIT, LIQUID LEVEL PROBE GT	19	WC- 718	TRANSFORMER, 120VAC-12VAC
4	WC-3734 *	KIT, DUMP VALVE 120V 12W	20	WC- 782*	CONTROL POWER MODULE CAFEPC's 120V
5	WC- 904-04*	HEATING ELEMENT 1600W 120V W/JMNUT	21	WC-37174*	KIT, GEAR MOTOR & GEAR
6	WC-1438-101 *	SENSOR, TEMPERATURE TANK	22	CA-1135	LATCH ASSEMBLY DOOR SIDE MOUNT
7	WC- 521 *	SWTICH, #4680 VESSEL LIMIT	23	WC-5310 *	TUBING, 5/16" ID x 1/8" W SILICONE
8	WC-6291	TANK COMPLETE, CAFE PC3	24	WC-68219	COVER, BACK DOOR
9	WC-3765L *	KIT, INLET VALVE REPAIR USE ON WC-826L	25	WC-68218	DOOR, CAFEPC
10	WC-7389	COVER, TOP CAFE PC3	26	WC- 722K	PANEL, SW 120V CAFE PC3 (W/SMART CARD)
11	CA-1111-06	CANISTER ASSY 4LB CAFEPC2/3/4	27	WC-39499	LABEL, ASSY CNTRL PNL & OUTER CAFE PC3
12	CA-1164	ELBOW, CANISTER LONG 107MM CAFE0AT	28	WC-66033	SCREEN, DRIP TRAY CAFE PC3
13	WC-58142	COVER, DUMP VALVE	29	WC-66036-101	DRIP, TRAY ASSY CAFE0AT3
14	CA-1036*	GEAR, PLASTIC	30	WC- 826L *	VALVE, INLET 1GPM 120V 10W
15	CA-1095	CONNECTOR, ORIFICE WATER	31	WC- 102*	SWITCH, TOGGLE NON-LIT 25A 120/240VAC
16	CA-1011-05	BULKHEAD, WATER FITTING	32	WC-58127	COVER, SIDE ACCESS CAFE PC ALL

* Suggested Parts to Stock

Electrical Diagram



HYBRID CONTROL POWER MODULE LEGEND:

14 PIN CONNECTOR PIN ASSIGNMENTS	
PIN 1:	12V TRANSFORMER
PIN 2:	12V TRANSFORMER
PIN 3:	WATER LEVEL PROBE
PIN 4:	Vdd +5V
PIN 5:	NOT USED
PIN 6:	TEMPERATURE SENSOR
PIN 7:	TEMPERATURE SENSOR
PIN 8:	NOT USED
PIN 9:	NOT USED
PIN 10:	CAFEP3 KEY3
PIN 11:	NOT USED
PIN 12:	DATA COMM
PIN 13:	Vss- (Logic Common)
PIN 14:	CHASSIS GROUND

12 PIN CONNECTOR PIN ASSIGNMENTS	
PIN 1:	120VAC HOT
PIN 2:	120VAC HOT
PIN 3:	DUMP VALVE #1
PIN 4:	INLET VALVE
PIN 5:	120VAC NEUTRAL
PIN 6:	NOT USED
PIN 7:	GEAR MOTOR #1
PIN 8:	DUMP VALVE #2
PIN 9:	GEAR MOTOR #2
PIN 10:	DUMP VALVE #3
PIN 11:	GEAR MOTOR #3
PIN 12:	NOT USED

SMART CARD MODULE LEGEND:

4-PIN CONNECTOR ASSIGNMENTS	
PIN 1:	Vdd +5V
PIN 2:	Vss- (Logic Common)
PIN 3:	DATA COMM FIRST
PIN 4:	DATA COMM NEXT

② USE THIS DIAGRAM FOR ALL OTHER MODELS WITH ADDED PREFIX AND/OR DIFFERENT ENDING NUMBERS ON THEIR PART NUMBERS AND WITH EQUIVALENT ELECTRICAL RATINGS.

① WIRE GROUND LUG TO TANK STUD BEFORE INSTALLING ON CHASSIS. DO NOT INSTALL ON TANK LID SCREWS.

NOTES: UNLESS OTHERWISE SPECIFIED

ELECTRICAL RATING TABLE

MACHINE	TOTAL POWER (WATTS)	TOTAL CURRENT (AMP.)	HEATING ELEMENT (WATTS)	VOLTAGE: 120VAC	WATTAGE: SEE ELEC. TABLE	AMPERAGE: SEE ELEC. TABLE	HERTZ: 60Hz	WIRES: 2W+G	PHASE: 1-PH
CAFE0AT3	1800	15	1600						
CAFE0AT3C	1350	12	1150						

TITLE: LADDER DIAGRAM

PART NUMBER: LD-CAFE0AT3 REVISION: A

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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 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.



WILBUR CURTIS CO., INC.

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– Technical Support Phone: 800/995-0417 (M-F 5:30A - 4:00P PST) – E-Mail: techsupport@wilburcurtis.com

– Web Site: www.wilburcurtis.com

FOR THE LATEST SPECIFICATION INFORMATION GO TO WWW.WILBURCURTIS.COM