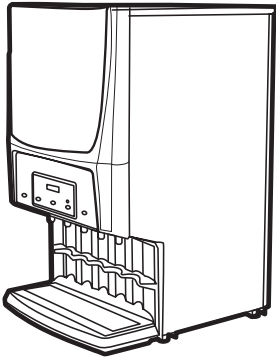




# WILBUR CURTIS Co., Inc.

## Service Manual – PCGT4 & PCGT5



### Models Included

- PCGT4
- PCGT5



**CAUTION:** Equipment must be installed to comply with applicable federal, state, and local plumbing/ electrical codes having jurisdiction.



**CAUTION:** Follow this setup procedure before attempting to use this unit. Failure to follow these instructions can result in injury and/or void of warranty.



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

ISO 9001:2008 REGISTERED

WILBUR CURTIS CO., INC.  
6913 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

### Important Safeguards/Symbols

This appliance is designed for commercial use. Any servicing other than cleaning and routine maintenance should be performed by an authorized Wilbur Curtis Co., Inc. 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

Your Curtis G3 System is Factory Pre-Set and Ready to Go, Right from the Box. Following are the Factory Settings for your Primo Cappuccino Beverage System:

- Tank Temperature = 190°F
- Flavor Controls= Set at 60%
- Dispensing Mode Set for Manual Dispensing

Generally there will never be a reason to change your G3 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 electrical schematic on page 7.

### 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 going 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](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) so that the machine can be moved for cleaning underneath.
2. This equipment is to 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 potable water supply shall be sized, installed and maintained in accordance with federal, state, and local codes.

3. Plug the power cord into an electrical outlet rated at 20A.
4. Turn on power at the toggle switch behind the unit. The lights (display window and row of buttons) on the front door will activate and the heating tank will start to fill.
5. Water in the heating tank will require about one hour to reach operating temperature (factory setting of 190°F). At this time the LCD will display “READY TO DISPENSE”.
6. Remove and fill the canisters with powdered cappuccino product.

FOR THE LATEST SPECIFICATIONS AND INFORMATION GO TO [WWW.WILBURCURTIS.COM](http://WWW.WILBURCURTIS.COM)  
Technical support: 1-800-995-0417. M-F 5:30am-4:00pm PST.

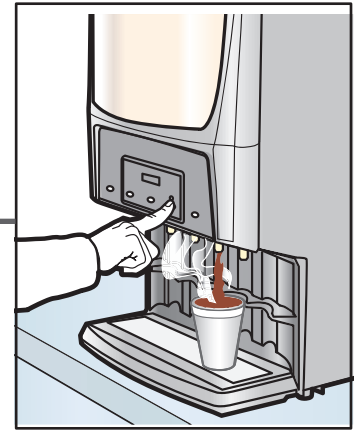
Email: [techsupport@wilburcurtis.com](mailto:techsupport@wilburcurtis.com)

## Operating Instructions

1. Choose a flavor. Place your cup under the spout beneath the desired flavor.
2. Push and hold the dispensing button for this flavor.
3. Release the button when the cup is  $\frac{3}{4}$  full.

## FILL CANISTERS DAILY

1. Open the front door to access the product canisters.
2. The canisters must be removed from the unit for filling. Turn the powder delivery elbows clockwise, pointing upward. Pull all of the canisters from the canister tray.
3. Refill the canisters. The small canisters hold five pounds of product. Larger canisters hold 10 pounds each. See Configuration of Canisters on page 6.
3. Reposition the canisters on the canister tray. Properly mate the gear socket with the gear on the motor shaft when aligning canisters. Turn the elbows clockwise, pointing downward.



## Cleaning the Curtis Primo Cappuccino GT Beverage Dispenser

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

### I. EVERY 3 - 4 HOURS OR MORE OFTEN IF NECESSARY

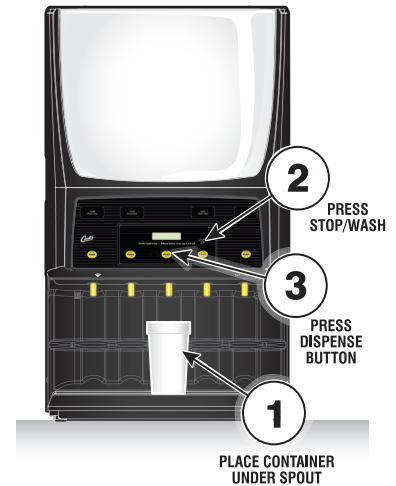
- A. Make sure power is ON.
- B. Place a container under the dispense spout to catch the rinse water.
- C. Locate the WASH button on the front control panel.
- D. Rinse each flavor by pressing and holding the WASH button, while at the same time pressing one of the PUSH dispensing buttons on the control panel.
- E. Continue holding the WASH button until the water running from the spout runs clear.

### II. DAILY

- A. Switch OFF the unit at the power toggle switch, located behind the unit.
- B. Wipe all exterior surfaces with a damp cloth, removing any spills, residue or dust from the unit.
- C. Remove both the drip drawer and louvered screen; then wash out its contents. For hard to clean deposits, use a mild, nonabrasive detergent. Rinse with water.
- D. Wipe and clean the dispensing area with a mild detergent cleaner.

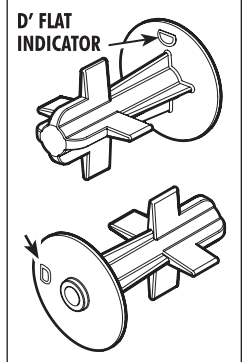
### III. WEEKLY OR MORE OFTEN IF NECESSARY

- A. Clean the parts from the whipper assembly.
  1. Remove the dispensing nozzle from the whipper chamber. Clean the inside using a narrow brush.
  2. Remove the upper mixing cup. Pull cup forward, twist to the left and lift it to separate the upper mixing cup from the lower mixing cup.
  3. To remove the lower mixing cup, pull mixing cup up and forward to free it from the hot water inlet fitting.
  4. Remove the whipper chamber. Take hold of the whipper chamber. Turn it clockwise to free it from the mounting plate.
  5. Pull the whipper propeller from the motor shaft.
  6. Wash, Rinse and Sanitize using a 3-sink method. Air dry all parts.
  7. Re-assemble cleaned parts onto the machine.



**IMPORTANT** - When replacing the propeller, make sure it is properly aligned and seated on the motor shaft. The propeller has an embossed 'D' to properly align it on the motor shaft.

**Failure to properly seat the propeller will cause it to fuse with the whipper chamber.** This condition will not be covered under warranty.



6. Clean the mounting plate.
  - a. Clean the shaft with a cloth and mild detergent before removing mounting plate.
  - b. Twist the mounting plate clockwise and pull it from the motor shaft.

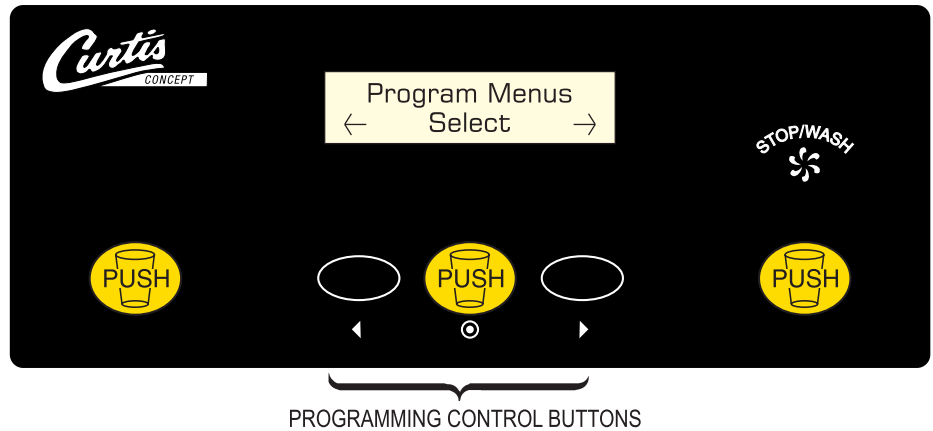
**IMPORTANT** - Do not remove pillars to take off mounting plate.

- c. Clean the area behind the mounting plate.
- d. Clean the water inlet fitting.
- e. Lubricate the center seal of the mounting plate before reinstalling.

## Steps to Programming

Your Curtis Generation 3 cappuccino dispenser is Factory Pre-Set for Optimum Performance. Programming for all PCGT models is identical except where noted.

**Entering the Programming Menu**  
Press and hold STOP/WASH for about ten [10] seconds. Display will read Program Menu, (See Illustration).



### Manual Dispense (Factory Set to Manual Dispense)

Press  $\odot$  or  $>$  to go to Manual Dispense Select.

Press  $\odot$  to go to Manual Dispense Select Station.

Choose the station and press, the display will read Saving Complete! To select another station for manual dispense, press  $\odot$  to go to Manual Dispense Select Station or press  $>$  to continue to the next menu.

### Dispense By Time (Factory Setting OFF)

The next screen is Dispense By Time  $< \text{Select} >$ . Press  $\odot$  to select a station. Select the station and the screen will read To Begin Press Push. Press desired dispense button. Hot water will start to dispense and screen will display To Finish Press Push. When Push is pressed, time will be saved and you will exit back to Dispense by Time screen. Continue with additional selections or press  $>$  to continue to the next menu.

### Temperature (Factory set at 190°F – Cold Cappuccino Units Set at 96°F)

Press  $\odot$  and screen will show Tank Temperature. Temperature is programmable from 80°F to 204°F in 2-degree increments. Press  $<$  or  $>$  to go up or down in degrees. Select desired temperature and then  $\odot$  to set. Press  $>$  to continue to the next menu.

### Powder % Ratio (Factory set at 60%)

Press  $\odot$  and the screen will display Powder % Ratio Select Station. Press desired station. Powder ratio is programmable from 0% (Hot Water) to 100%, in 5% increments. Press  $<$  or  $>$  to increase or decrease ratio and then press  $\odot$  to set. Press  $>$  to continue to the next menu.



Valves should not be field adjusted to change product strength. Product strength adjustments should be done through programming on the front panel only.

### Service Call (Factory Set to 1-800-000-0000 x0000)

Press  $\odot$  to display number and press  $\odot$  change number or  $>$  to move places and EX to exit when complete This number will be displayed during a Heating system SENSOR ERROR or a WATER ERROR. Press  $>$  to continue to the next menu.

### Banner Name (Factory Set to Curtis)

Press  $\odot$  to display letters, press  $\odot$  to change letters or  $>$  to move places 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. Press  $>$  to continue to the next menu.

### Model Select

Press  $\odot$  to select,  $<$  or  $>$  to select desired model (PC-1, -2, -3, -4, -5) . Press  $\odot$  to set and exit program mode.

### Exit

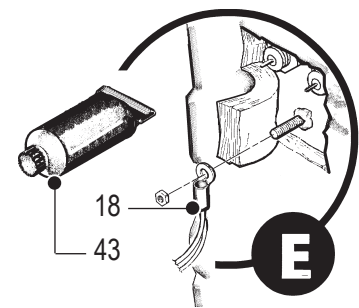
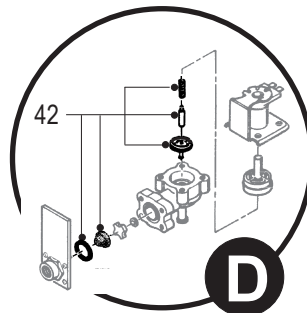
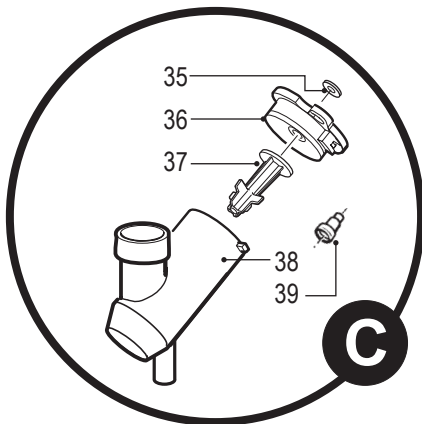
Press  $\odot$  to select, exits program mode and returns unit to operation.

## Parts List

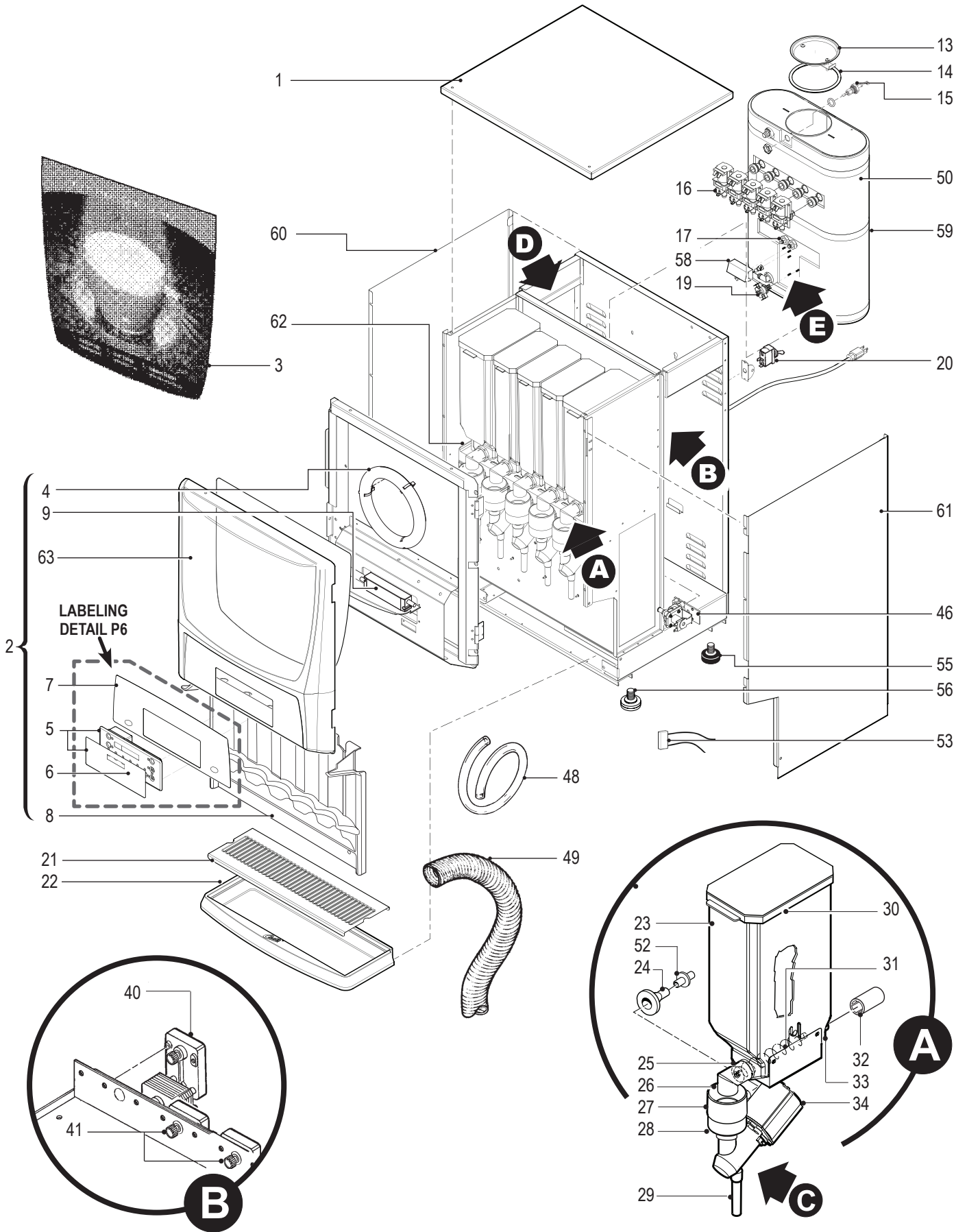
ITEM N <sup>o</sup>	PART N <sup>o</sup>	DESCRIPTION
1	WC-68159	COVER, TOP PCGT4/5
2	WC-68167-101	DOOR COMPLETE PCGT-5
2A	WC-68167	DOOR COMPLETE PCGT-5 (OLDER VERSION)
3	CA-1110-01	FILM, CURTIS LOGO PCGT-4/5
4	CA-1174	LED LAMP ASSY - 11-12W 36VDC
5	WC-37127	KIT, UCM BOARD & LABEL PCGT4
5A	WC-37128	KIT, UCM BOARD & LABEL PCGT5
6	WC-39350-01	LABEL, UCM PANEL PCGT4 CURTIS
6A	WC-39351-01	LABEL, UCM PANEL PCGT5 CURTIS
7	WC-39957	MEMBRANE CONTRL PANEL PCGT4/5 CURTIS
7A	WC-39753	MEMBRANE CNTRL PNL PCGT4/5 (OLD VER)
8	CA-1171	COVER, ALCOVE PCGT-4/5
9	CA-1175K	KIT, POWER SUPPLY FOR LED LAMP PCGTs
10	WC-780	CONTROL, POWER MODULE CORK BRAKE
11	WC-37123	KIT, FAN EXTRACT 120V 29 CFM & BRACKET
12	CA-1039	O-RING, DUMP VALVE (WC-880)
13	WC-37008	KIT, TANK LID ROUND
14	WC-43067	O-RING, 4-1/2 I.D. x Ø.285 SILICONE
15	WC-5527K	KIT, WATER LEVEL PROBE, O'RING, NUT
16	WC-3734	KIT, RPL DUMP VALVE FOR WC-880E PCGTs
17	WC-904-04	HEATING ELEMENT, 1.6KW W/JAMNUTS
18	WC-1438-101	SENSOR, TEMPERATURE TANK
19	WC-523	THERMOSTAT, MNL RESET 120/240V 25A
20	WC-102	SWITCH, TOGGLE NON LIT 15A 120/240V SPST
21	WC-68147	SCREEN, DRIP TRAY PCGT-4/5
22	CA-1157	DRIP TRAY, PLASTIC PCGT-4/5
23	CA-1112-06	CANISTER ASSY, 5LB PCGTs
23A	CA-1113-06R	CANISTER ASSY, 10LB RIGHT PCGTs
23B	CA-1113-06L	CANISTER ASSY, 10LB LEFT PCGTs
24	CA-1011-05	FITTING, BULKHEAD WATER PCGTs
25	CA-1065-03	BUSHING, DISCHARGE PC/CK/HC
26	CA-1026-03	ELBOW, PC/CK/HC
27	CA-1005-03	STEAM TRAP PC/CK/HC
28	CA-1009-03	BOWL, MIXING PC/CK/HC
29	CA-1037-3Y	TUBE, EXTENSION 3.0" LONG YELLOW

ITEM N <sup>o</sup>	PART N <sup>o</sup>	DESCRIPTION
30	CA-1002-01	LID, CANISTER, 4/5LB CHAMFERED
30A	WC-5664-05	LID, CANISTER, 10LB PCGT's
31	CA-1047	AUGER, WIRE PCs & PCGTs
32	WC-37054	KIT, SOCKET GEAR PC/CK/HC
33	WC-2626-03	BUSHING, AUGER PC/CK/HC
34	WC-3739	KIT, WHIPPER MOTOR, SCREWS & INSTR
35	WC-43791	RING, MOTOR SHAFT PLASTIC
36	WC-37118	KIT, WHIPPER PLATE (W/SEAL) 3/PKG
37	CA-1008-07K	KIT, PROPLR OFFSET BLADES PCGT PKG6
38	CA-1006-06	WHIPPER CHAMBER OFFSET PCGTs
39	CA-1024-05	PILLAR, LOCATION BLACK
40	WC-37174	KIT, GEAR MOTOR, CORK BRAKE PCGT
41	CA-1036	GEAR, PLASTIC USE ON CA-1013
42	WC-3765L	KIT, INLET VALVE REPAIR USE ON WC-826L
43	WC-5231	COMPOUND, SILICONE 5 OZ TUBE
44	WC-39350-02	LABEL, PANEL FLAVOR CURTIS PCGTs
45	WC-39203	LABEL, SERVICING INSTR (NOT SHOWN)
46	WC-826L	VALVE, INLET 1 GPM 120V 10W YELLOW
47	WC-8556	HEAT SINK ASSEMBLY DV PCGTs
48	WC-5310	TUBE, 5/16" ID X 1/8"W SILICONE
49	CA-1030-17	HOSE, EXTRACTOR FAN 17" LONG
50	WC-6295	HEATING TANK, COMPLETE PCGT4
50A	WC-6296	HEATING TANK, COMPLETE PCGT5
51	WC-58120	COVER, DUMP VALVE PC-4/5GT
52	CA-1095	CONNECTOR, ORIFICE WATER PCGT
53	WC-8591	CAPACITOR, X2 ALL ADS MODELS
54	CA-1135	LATCH ASSY, DOOR (NOT SHOWN)
55	WC-3503	LEG, 3/8"-16 STD SCREW BUMPER
56	WC-3518	LEG, GUIDE 3/8"-16 STUD SCREW
57	WC-4320	O-RING, 1/2" I.D. (NOT SHOWN)
58	WC-4394	GUARD, SHOCK HEATING ELEMENT
59	WC-3689	INSULATION, WRAP PCGT
60	WC-68123	PANEL, LEFT SIDE PCGTs
61	WC-68121	PANEL, RIGHT SIDE PCGTs
62	WC-66044	CANISTER TRAY, ASSY PLASTIC PCGT4/5
63	CA-1107	WINDOW, FRONT CLEAR PCGT-4/5

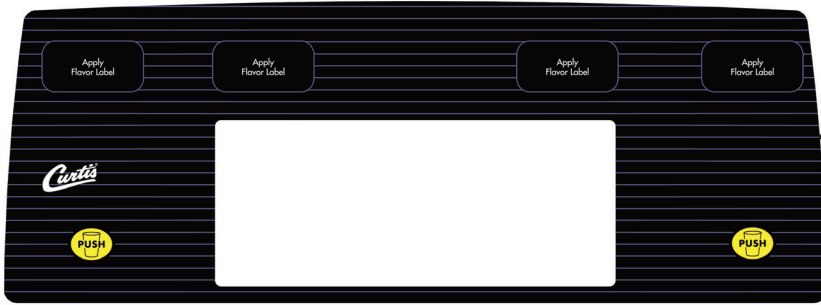
## Detail Bubbles



# Illustrated Parts



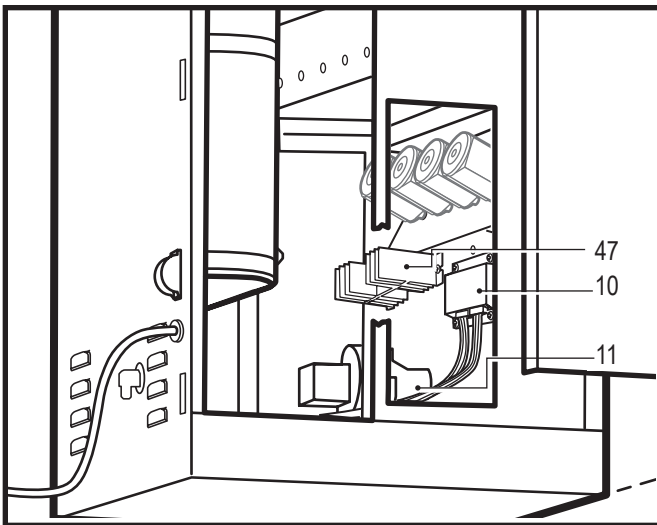
# Illustrated Parts



6

7

45

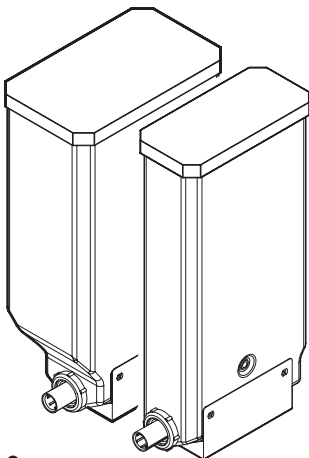


View of PCGT Unit with Side Panel Removed, Showing Location of Triac and Control Board.

Shaft seals should be replaced with the grooved side facing outward. Place a dab of food grade lubricant in the rear hole of the seal, as shown below.

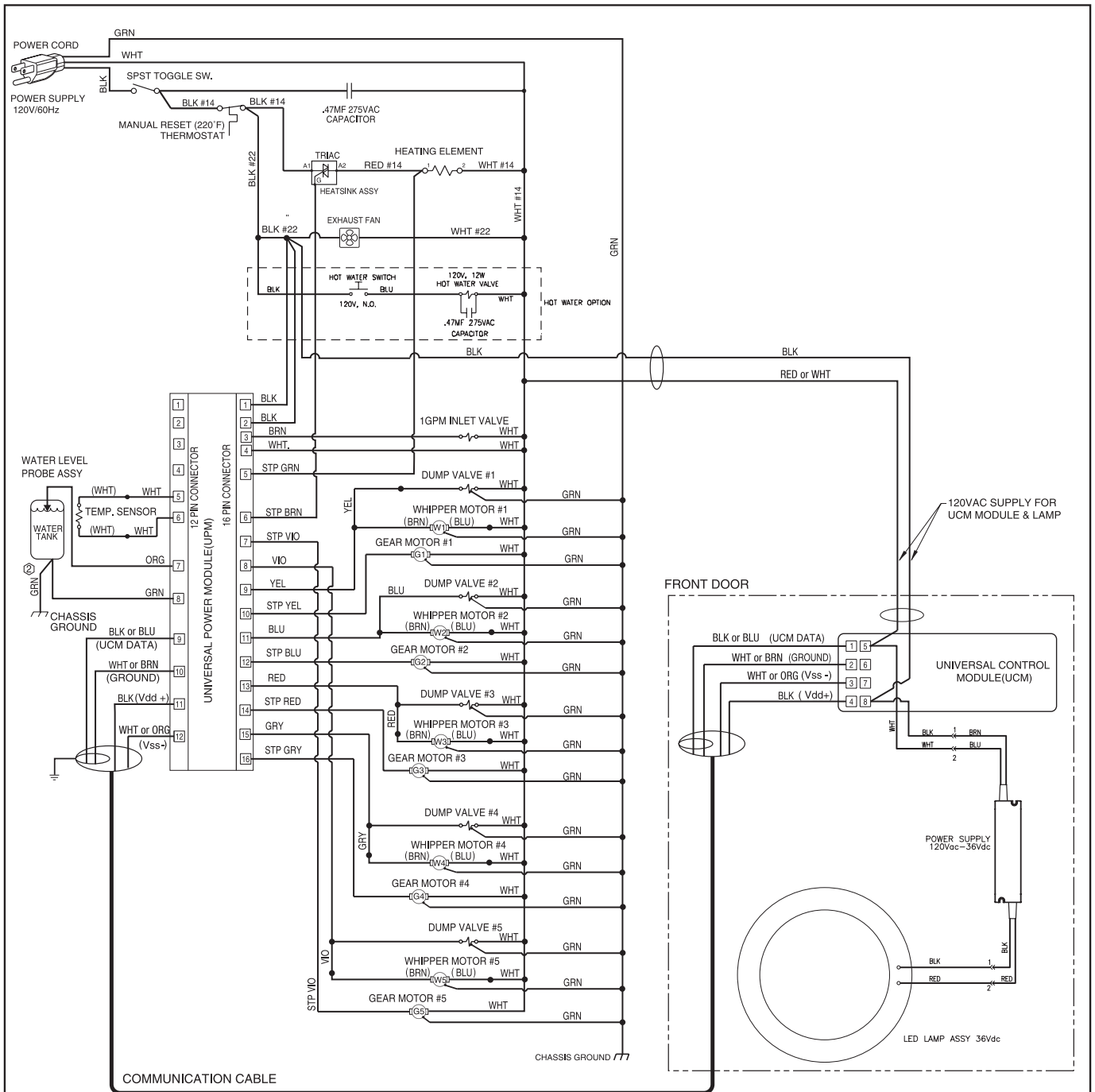
Before mounting a whipper plate, place a dab of food grade lubricant in the rear hole of the seal.

## CONFIGURATION OF CANISTERS ON PCGT MODELS



MODEL	10 LB. CANISTER P/N CA-1113-06L	10 LB. CANISTER P/N CA-1113-06R	5 LB. CANISTER P/N CA-1112-06
PCGT4	ONE	ONE	TWO
PCGT5	ONE	ONE	THREE

# Electrical Diagram



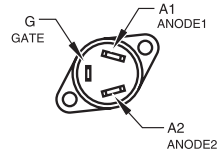
### UPM CONNECTOR PIN ASSIGNMENTS

- 1: 120Vac HOT
- 2: 120Vac HOT
- 3: INLET VALVE
- 4: 120Vac NEUTRAL
- 5: TRIAC A2
- 6: GATE, TRIAC
- 7: GEAR MOTOR #5
- 8: DUMP VALVE #5
- 9: DUMP VALVE #1
- 10: GEAR MOTOR #1
- 11: DUMP VALVE #2
- 12: GEAR MOTOR #2
- 13: DUMP VALVE #3
- 14: GEAR MOTOR #3
- 15: DUMP VALVE #4
- 16: GEAR MOTOR #4

### UCM CONNECTOR PIN ASSIGNMENTS

- 1: NOT USED
  - 2: NOT USED
  - 3: NOT USED
  - 4: NOT USED
  - 5: TEMPERATURE SENSOR
  - 6: TEMPERATURE SENSOR
  - 7: WATER LEVEL PROBE
  - 8: TANK/CHASSIS GROUND
  - 9: UCM DATA
  - 10: UCM DATA GROUND
  - 11: Vdd+
  - 12: Vss-
- ⑤ PCGT5 USES VALVES #1,#2,#3,#4,#5 & MOTORS #1,#2,#3,#4,#5  
 ④ PCGT4 USES VALVES #1,#2,#4,#5 & MOTORS #1,#2,#4,#5

### TRIAC PIN ASSIGNMENTS



### ELECTRICAL RATING TABLE

MACHINE	US MODELS		CANADIAN MODELS		HEATING ELEMENT (WATTS)
	TOTAL POWER (WATTS)	TOTAL CURRENT (AMP.)	TOTAL POWER (WATTS)	TOTAL CURRENT (AMP.)	
(SC)PCGTXX10000	1800	15			1600
(SC)PCGTXX20000			1350	12	1150

## 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](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 Co., Inc., assumes no responsibility for substitute replacement parts installed on Curtis equipment that have not been purchased from 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.

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**WILBUR CURTIS CO., INC.**

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

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

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

FOR THE LATEST SPECIFICATION INFORMATION GO TO [WWW.WILBURCURTIS.COM](http://WWW.WILBURCURTIS.COM)