

WILBUR CURTIS COMPANY, INC.

Service Manual – G4 ThermoPro Twin Brewer

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

Model

• G4TP2T



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 govern-

mental plumbing/electrical codes having jurisdiction.



CAUTION: DO NOT connect this brewer to hot water. The inlet valve is

not rated for hot water.

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 = 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. 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. A water filtration system will greatly prolong the life of the unit and enhance the quality and taste of the product.



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.
- 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 REGISTERED

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

QUICK START

ThermoPro

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	

is displayed. Water will fill the tank (2-3 minutes depending on water flow rate).

When the proper level is reached

HEATING

will appear on the screen. It takes approximately 30 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.

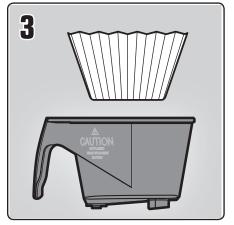
COFFEE BREWING INSTRUCTIONS

- 1. Brewer should be ON. Confirm this at the toggle switch on the back 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.



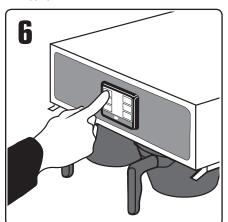
Place a new paper filter into the brew cone.



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



5. Transfer the filled brew cone to the brewer.



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



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.

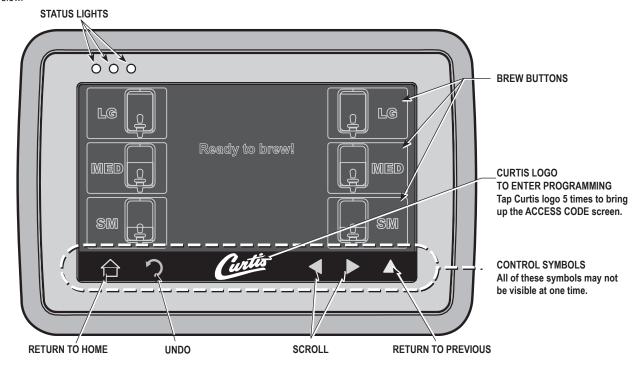
Refer to page 8 for more information about the Brew Code.



During the brew cycle, an animated 11/2 gallon satellite 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

ENTER ACCESS CODE			
	1234		
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.

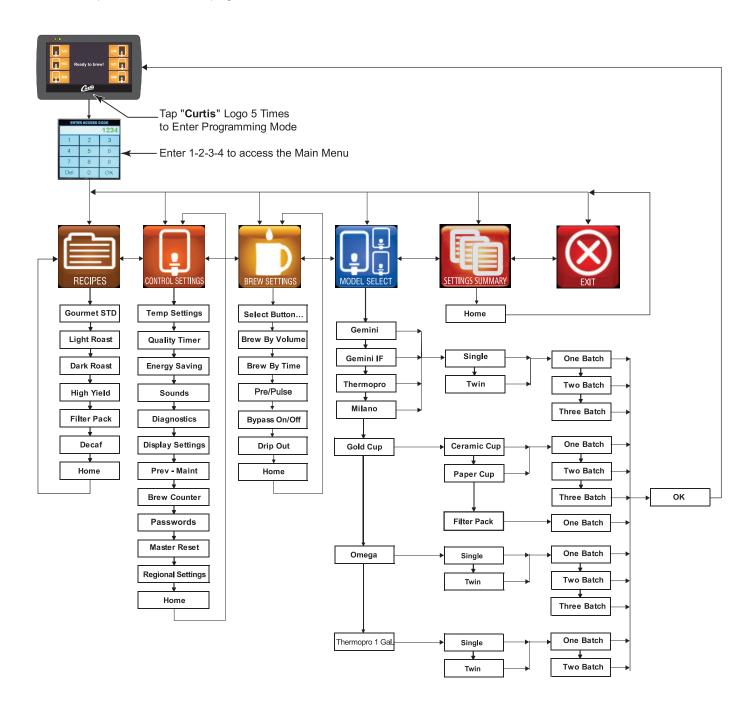


MAIN MENU screen contains six control icons:
RECIPES, CONTROL SETTINGS, BREW SETTINGS,
MODEL SELECT, SETTINGS SUMMARY and EXIT.

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

CONTROLS	EHINGS		
FUNCTION TO SET	SETTING RANGE	FACTORY SET DEFAULT	NOTES / COMMENTS
Temperature	175°F - 206°F , 1°F	Tank Temp = 200°F	
Settings	Increments	Minimum Brew Temp = 195°F	
	Disabled, 1 Hr - 12 Hr, 1 Hr Increments.	<disabled gems="" gemt="" on=""></disabled>	Note: This function is only visible or
Warmer Settings	1 Hr - 12 Hr, 1 Hr Increments. <10 Hr. on GEMTIF/GEMSIF>		Gemini Units.
	<off>, <high>, <med.>, <low></low></med.></high></off>	<med.> During Brewing</med.>	
Quality Timer	Disabled, 20min - 240min, 10 Minute Increments.	<pre><disabled gems="" gemt="" omg="" on="" tp2s="" tp2t="" tpc2s="" tpc2t=""> <120min on GEMTIF/GEMSIF></disabled></pre>	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 Mede	No Change		Tank temperature is maintained at the temp setpoint default
Energy Save Mode (Activates after 4	Turn Tank Heater Off	No Change	Tank is turned off.
Hours of Inactivity)	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
	Brew Timer-Hide/Show	Show	Displays Brew Time
	Quality Timer Hide/Show	Hide (Models: GEMT/GEMS/TP2T/TP2S/OMGT/OMGS)	Displays Quality Timer
Display Sottings	Quality fifther filde/3flow	Show (Models: GEMTIF/GEMSIF)	Displays Quality little
Display Settings	"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
riev. Maillellance	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 TO SET	SETTING RANGE	FACTORY SET DEFAULT	NOTES / COMMENTS
Brew by Volume		LARGE BREW: 200oz ± 8oz using a Amber AFS Sprayhead	
	OFF, 30sec to 19Min.59sec.	MEDIUM BREW: 132oz ± 4oz using a Amber AFS Sprayhead	To Set: Press Brew to start / Press Brew to stop.
	17Miii.3736C.	SMALL BREW: 64oz ± 4oz using a Amber AFS Sprayhead	
		LARGE BREW: 5min 25secs using a Amber AFS Sprayhead	
Brew by Time	0 to 19Min - 59sec, 1min-01secs increments	MEDIUM BREW: 3min 32secs using a Amber AFS Sprayhead	Note: These are the default times for a Amber AFS Sprayhead,
	mini-orsecs increments	SMALL BREW: 1min 52secs using a Amber AFS Sprayhead	a sprayment,
	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></disabled>
Pre-Infusion	30 secs On/30 secs Off	Disabled	When this is Chosen"COLD BREW LOCK set to 5°F, Pulse Brew On/Off" Function <disabled></disabled>
	40 secs On/40 secs Off		When this is Chosen"COLD BREW LOCK set to 5°F, Pulse Brew On/Off" Function <disabled></disabled>
	50 secs On/50 secs Off		When this is Chosen"COLD BREW LOCK set to 5°F, Pulse Brew On/Off" Function <disabled></disabled>
	60 secs On/60 secs Off		When this is Chosen"COLD BREW LOCK set to 5°F, Pulse Brew On/Off" Function <disabled></disabled>
	OFF		OFF
Pulse Brew On/Off	A	c	A = "10 seconds ON 4 Times"/"10 seconds OFF 4 Times", then "ON" Till End of Brew Cycle.
	В		B = "1 Minute ON", "10 seconds OFF 4 Times"/10 seconds ON 4 Times", Till end of Brew Cycle.
	С		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 12 pulses", "ON TIME = 0 - 150 seconds", "OFF TIME = 1 - 150 seconds", 1 second increments.
		LARGE BREW: 35% using a Amber AFS Sprayhead	<u> </u>
By-Pass On/Off	Off, 5%-50%, in 1% increments	MEDIUM BREW: 10% using a Amber AFS Sprayhead	Note: These are the default times for a Amber AFS Sprayhead
		SMALL BREW: Off using a Amber AFS Sprayhead	
Drip-Out Mode	Off, 10 Seconds - 15min, 10 Second Increments	2 min	Reprogrammable
Home	_		Select to go to Home Page

System Fault Messages

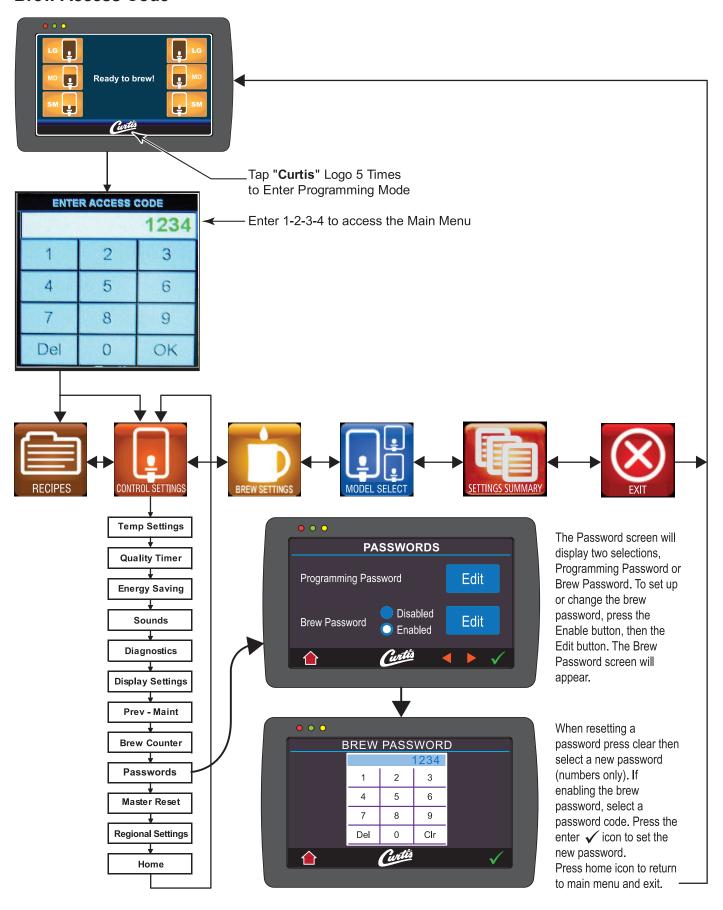
WARNING MESSAGES - ALLOWS BREWING

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 = Alpha 20 secs; Gem/TP Twin 40 secs; Gem/TP Single 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 curcuit.
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



USB - Easy Programming

There are two methods that can be used to change the default settings on G4 brewers. They can be programmed at the brewer by the touch screen universal control module (UCM) or the settings can be changed using the USB (Universal Serial Bus) data port on the side of the brewer. Using the USB connection and a flash memory data storage device will easily reprogram the settings simply by copying data.

The flash drive can upload or download the entire setting from one G4 brewer, into another G4 brewer. This eliminates the need to walk through the usual steps in reprogramming that would be required when you use the touch screen to make a change. This is an advantage for a service technician when standardizing the program settings on multiple G4 brewers.



Use a USB drive with USB 2.0 support and a type-A USB connection. Storage capacity should be 2 GB minimum (reference the illustration on page 2).

IMPORTANT: The flash drive must be completely blank. Before starting, please erase any files that may be in the USB drive.

SOFTWARE INFORMATION TRANSFER

UPLOAD TO USB

- 1. Make sure the brewer is on. Determine that the G4 brewer you wish to copy is properly programmed for your desired settings.
- Connect an empty flash drive into the USB port on the brewer. The UCM on the brewer will upload all of the particular setup
 data onto the flash drive. The yellow LED on top of the touch screen will light indicating that data is transferring. This will only
 take a second to complete.

DOWNLOAD TO BREWER

- 1. Select the brewer you wish to make the program changes on. The brewer should be on.
- 2. Plug the loaded flash drive into the USB port on the brewer. The data copied from the first G4 brewer will automatically download, overwriting all the settings that were on the second brewer.
- 3. The red LED on the UCM will indicate that the download is in process. This will only take a second.
- 4. Once the download is complete, the UCM will reboot in order for the changes to take effect.
- 5. Remove the flash drive. The download is complete. The data on the flash drive can be downloaded into as many G4 brewers as needed.

USB - File Transfer

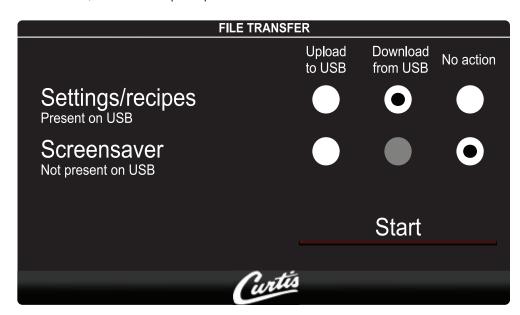
This screen will be presented whenever the USB flash is inserted, as long as UCM is showing main brew screen and is not currently brewing.

The default action is 'No action'.

The UCM will always create a backup on the USB flash drive before downloading settings/recipes or screen saver.

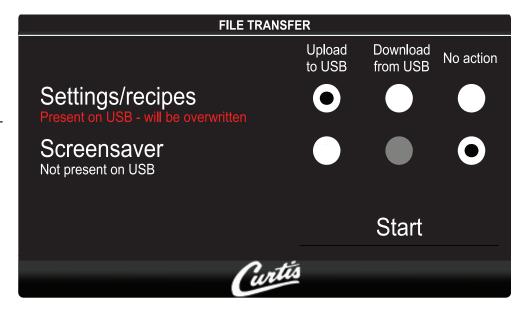
If a firmware update file is present on the USB flash, the firmware update procedure will be started BEFORE this screen is shown.

Case 1: Settings/recipes file present, screen saver not present. User has selected 'Download from USB' for settings/recipes file.

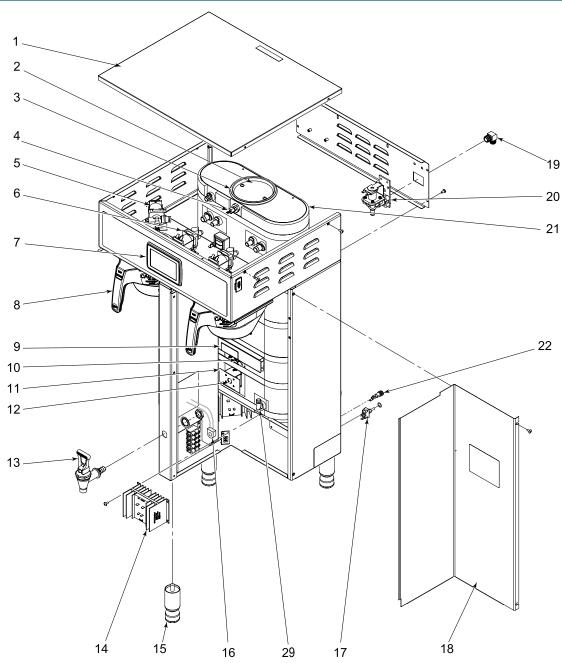


Case 2: As above, but user has selected 'Upload to USB' for settings/recipes file.

With this action, the overwrite warning appears.

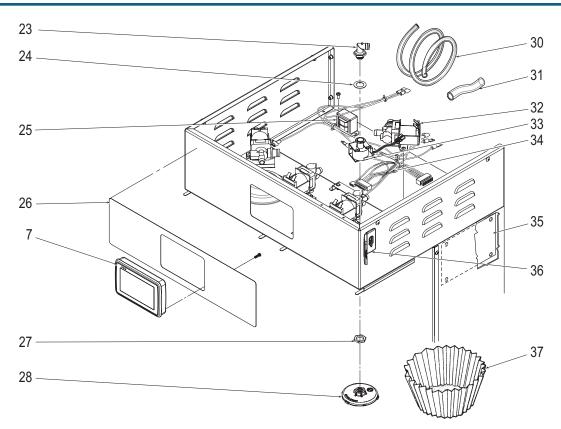


Illustrated Parts Main View



ITEM NO.	PART NO.	DESCRIPTION
1	WC-5459	COVER, TOP WRAP
2	WC-37008*	KIT, TANK LID ROUND
3	WC-43067*	O-RING, 4-1/2 I.D. x Ø.285 C.S. SILICONE
4	WC-5502-01*	KIT, PROBE, ASSY WATER LEVEL W/HEX FITTING, O-RING & NUT
5	WC-37121*	KIT, DUMP VALVE LEFT
6	WC- 844-101*	VALVE, BYPASS 120V-14W NON ADJUSTABLE w/RESTRICTOR (WC-2945)
7	WC-10000	CONTROL MODULE, TOUCH SCREEN G4
8	WC-3417	BREW CONE, ASSY W/SPLASH POCKET BRWN STYLIZED HOT COFFEE
9	WC-4382*	GUARD, SHOCK (HEATING ELEMENT)
10	WC-1438-101*	SENSOR, TEMPERATURE TANK
11	WC-43055*	GUARD, SHOCK RESET THERMOSTAT
12	WC- 522 *	THERMOSTAT, HI LIMIT HEATER DPST 277V-40A

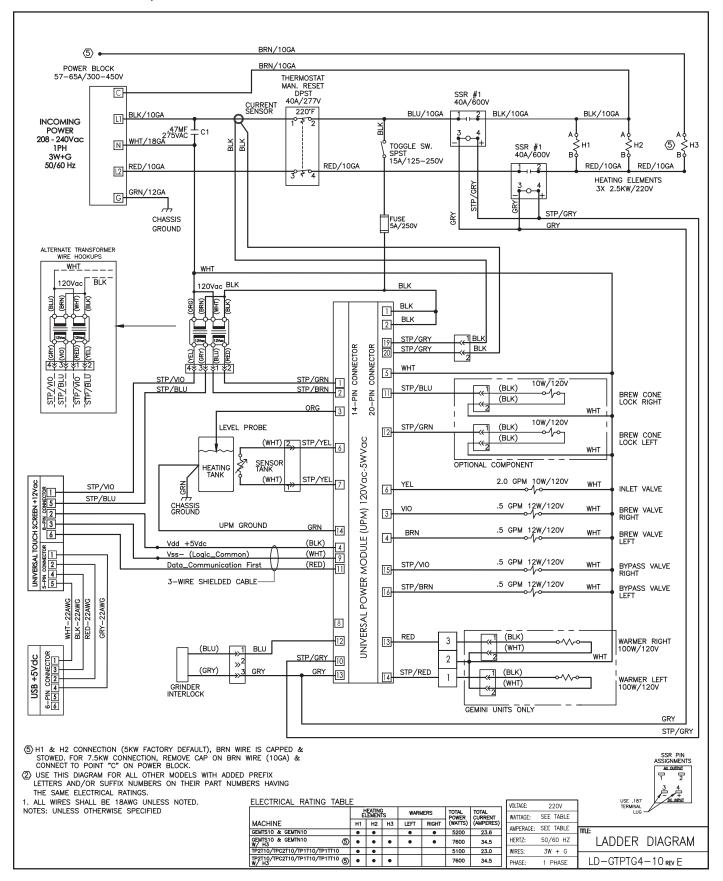
Illustrated Parts Top Wrap



ITEM NO.	PART NO.	DESCRIPTION
13	WC-1825	FAUCET ASSY, HOT WATER
14	WC-8559	RELAY, SOLID STATE 40A w/INTEGRATED HEATSINK
15	WC-3528	LEG, 4" ADJUSTABLE 3/8-16 THRD STYLIZED
16	WC-14045-101*	CURRENT SENSOR ASSY G4
17	WC- 102 *	SWITCH, TOGGLE SPST 15A 125Vac RESISTIVE
18	WC-58037-101	COVER, CENTER WRAP
19	WC-2402P	ELBOW, 3/8 NPT x 3/8 FLARE PLATED
20	WC- 847 *	VALVE, INLET 2 GPM 120V-10W
21	WC-62030	TANK, COMPLETE TP2T W/ULTEM FITTINGS
22	WC-1501	FUSE, HOLDER ASSY w/5A FUSE
23	WC-2977-101K	KIT, SPRAYHEAD FITTING PLASTIC
24	WC-43089	GASKET, 1.00"OD x .625" I.D. x .030" THK RED SILICONE 40 SHORE
25	WC- 589-101	TRANSFORMER, 120/230VAC - 24VAC 4.8VA w/LEADS & TERMINALS
26	WC-39812	LABEL, OUTER TOUCHSCREEN TP2T CURTIS LOGO
27	WC-4212-02	NUT, 5/8-18 JAM PLASTIC-ULTEM
28	WC-29050*	SPRAYHEAD ASSY, AFS-AMBER
29	WC-37365	KIT, FITTING TANK INLET
30	WC-5310*	TUBE, 5/16 ID x 1/8W SILICONE
31	WC-5350*	TUBE, SILICONE Ø1/2" ID x Ø3/4" OD x 1/8" WALL
32	WC-37122*	KIT, DUMP VALVE RIGHT
33	WC- 442 *	SOLENOID, LOCK BREW CONE RIGHT 120VAC
34	WC-13450	HARNESS ASSY, COMPLETE TP2T10G4/GEMTS10G4/GEMTIF10G4
35	WC-10001*	UNIVERSAL POWER MODULE - G4
36	WC-10008	UNIVERSAL HOST ADAPTER (USB)
37	GEM-6 *	FILTER, 500PK GEM-12/230A
	* DECO	MMENDED DADTS TO STOCK

^{*} RECOMMENDED PARTS TO STOCK

Electrical Schematic ThermoPro Twin, TP2TG4-10



Cleaning the ThermoPro

Regular cleaning and preventive maintenance is essential in keeping your coffee brewer looking and working like new. To clean the coffee brewer and components, prepare a mild solution of dish washing detergent and warm water.

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.

DAILY CLEANING

- 1. Wipe exterior surfaces with a damp cloth, removing spills and debris.
- 2. Slide the brewcone out and clean it. Wipe the sprayhead area with a cloth soaked in a mild detergent solution.
- 3. Rinse with a cloth soaked with clean water. Dry the brewcone and sprayhead area.
- 4. Drain drip trays of coffee. Water rinse.
- 5. Dry the tray.

WEEKLY CLEANING

- 1. Reach behind the brewer and turn off the power at the toggle switch. Allow the brewer to cool.
- 2. Clean the sprayhead and dome plate area.
 - a. Remove the sprayhead, unscrewing counterclockwise from the dome plate.
 - b. Thoroughly clean and rinse the dome plate area.
 - c. Clean the brewcone rails with a brush soaked with a mild detergent solution. Rinse the area with a cloth soaked with clean water, removing any residual detergent.
 - d. Dry the area.
 - c. Attach the sprayhead.

Liquid Level Probe

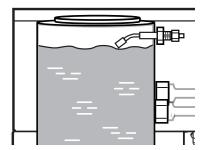
Cleaning intervals for the probe are to be determined by the user or the service tech, based on water conditions. The use of water filters, or the type of water filter that is being used can impact the service interval. Intervals can be from one month to several years, however, replacing rather than cleaning the probe is preferable.



WARNING: Disconnect electrical power before removing access panels! This procedure involves working with hot water and hot surfaces!

- 1. Unplug the power cord and shut off the water line.
- Remove the top cover of the unit. Locate the top of the tank and remove the cover.
- 3. Drain the tank to a level about 3" below the tip of the probe.
- 4. Allow some time for the probe to cool before working on the brewer.
- 5. Clean the tip of the probe using a Scotch-BriteTM scuff pad.
- If a residual white layer is still visible on the probe, remove the probe and soak it in vinegar or a scale removing chemical. Repeat this step until the white layer is removed.
- 7. When assembling the probe back onto the tank, make sure the tip of the probe is pointing downward as illustrated.





Cleaning the Thermoserver

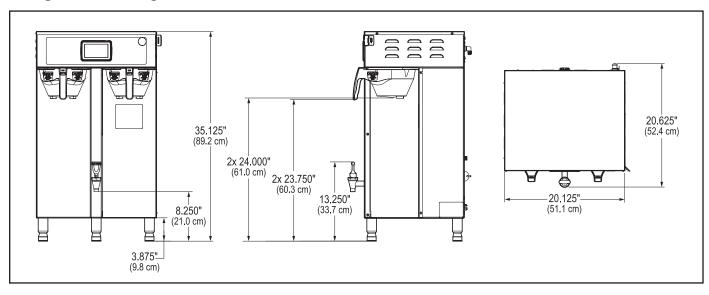
- 1. Drain coffee from the server.
- 2. Fill the liner with a mild detergent solution and let it stand for 10 to 15 minutes.
- 3. After about 15 minutes take a sponge brush and scrub out the stainless steel liner.
- 4. When clean, drain out the soapy solution from the server.
- 5. Fill the server with clean water to rinse detergent from inside the unit. Repeat this rinsing until the water runs clear.

CLEANING OF THERMOSERVER FAUCET

- 1. Remove the faucet handle assembly. Take hold of the bonnet and turn counterclockwise to unscrew it from the faucet.
- 2. Clean the handle assembly with a mild detergent solution. When clean, rinse the handle with water. Inspect for cracks or tears in the seat cup. Replace if damaged.
- 3. Clean the coffee level gauge glass.
 - a. Remove the sight glass cover by pulling up and off from the front of the server.
 - b. Using the narrow brush provided for this purpose, brush out the inside of the glass with a detergent solution. Rinse the sight glass tube of all detergent residue.
 - c. Pay special attention to the small gauge glass liquid level hole on the body of the faucet. You can brush this out with a small pipe cleaner.
 - d. Replace the sight glass. Make sure the top and bottom silicone seals are seated.



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 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, "0" 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.

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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) E-Mail: techsupport@wilburcurtis.com

Web Site: www.wilburcurtis.com



WILBUR CURTIS COMPANY, INC.

Service Manual – ThermoPro Twin & Single Brewers

Important Safeguards

This appliance is designed for commercial use. Any servicing other than cleaning and preventive maintenance should be performed by an authorized Wilbur Curtis 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. No user serviceable parts inside.
- Keep hands and other items away from hot surfaces of unit during operation.
- · Never clean with scouring powders, bleach 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 Carton.

Following are the Factory Settings for your G3 Coffee Brewing Systems:

• Brew Temperature = 200°F

- Water Bypass = On for LARGE & MEDIUM Brew Only
- Brew Volume = Set to Vessel Requirement.
- Sleep Mode = Off

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.



Models Included

WARNING HOT LIQUID, Scalding may occur. Avoid splashing.

TP2T – ThermoPro Twin TP2S - ThermoPro Single



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 federal.

state, or local plumbing/electrical codes having jurisdiction.



CAUTION: DO NOT connect this brewer to hot water. The inlet valve is

not rated for hot water.





ISO 9001 REGISTERED

WILBUR CURTIS COMPANY Montebello, CA 90640

Setup Steps

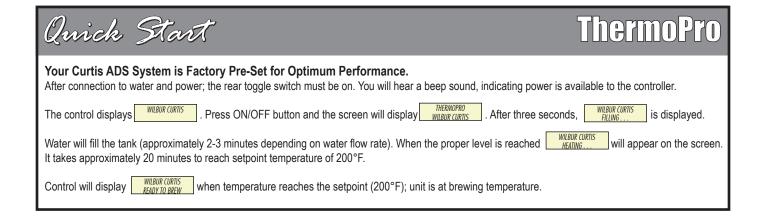
The unit should be located on a solid counter top and leveled (left to right and front to back). Connect a water line from the water filter to the brewer.

NOTE: A water filtration system must be installed 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 brewing system and enhance coffee quality.



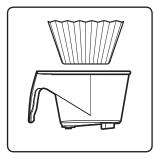
NSF International requires the following water connection:

- 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 the unit.
- 2. This equipment is to 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.
- 1. A 3/8"Flare x 3/8" Male pipe elbow is supplied with the brewer for water line connection. Use tubing sized sufficiently to provide a minimum of 1.0 GPM.
- 2. Connect the unit to an appropriate electrical power circuit.
- 3. Turn on the toggle (STANDBY/ON) switch behind the unit. The heating tank will start to fill. When the water level in the tank rises to the correct volume, the heating elements will energize automatically.
- The heating tank will require 20 to 30 minutes to reach operating temperature (200°F), indicated when READY TO BREW is displayed on the LCD screen.
- 5. Prior to brewing, dispense 12 ounces of hot water through the hot water faucet.
- Brew a cycle of at least 12 ounces, to purge the water lines of any air that may be trapped after filling.
- 7. Prior to brewing, dispense 12 ounces of hot water through the hot water faucet.
- Brew a cycle of at least 12 ounces, to purge the water lines of any air that may be trapped after filling.
- 9. The ThermoPro brewer is now ready for operation.



BREWING INSTRUCTIONS

- 1. Brewer should be ON (Confirm at rear toggle switch, then press the ON/OFF button). Screen should read Ready-to-Brew. If connected to an InterLock grinder. Grinder should be on.
- 2. Place an empty ThermoPro server centered beneath the brewcone.



3. Place a clean filter into the brewcone.



 Fill brewcone with the proper amount of ground coffee. If Interlocked, fill the brewcone at the grinder.



Transfer filled brewcone to the brew rails.

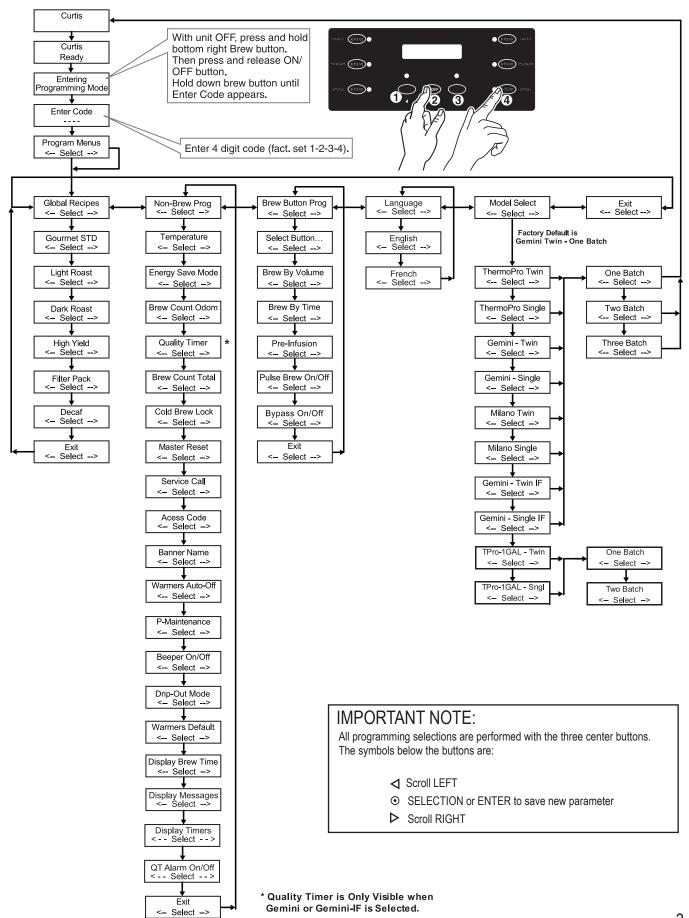


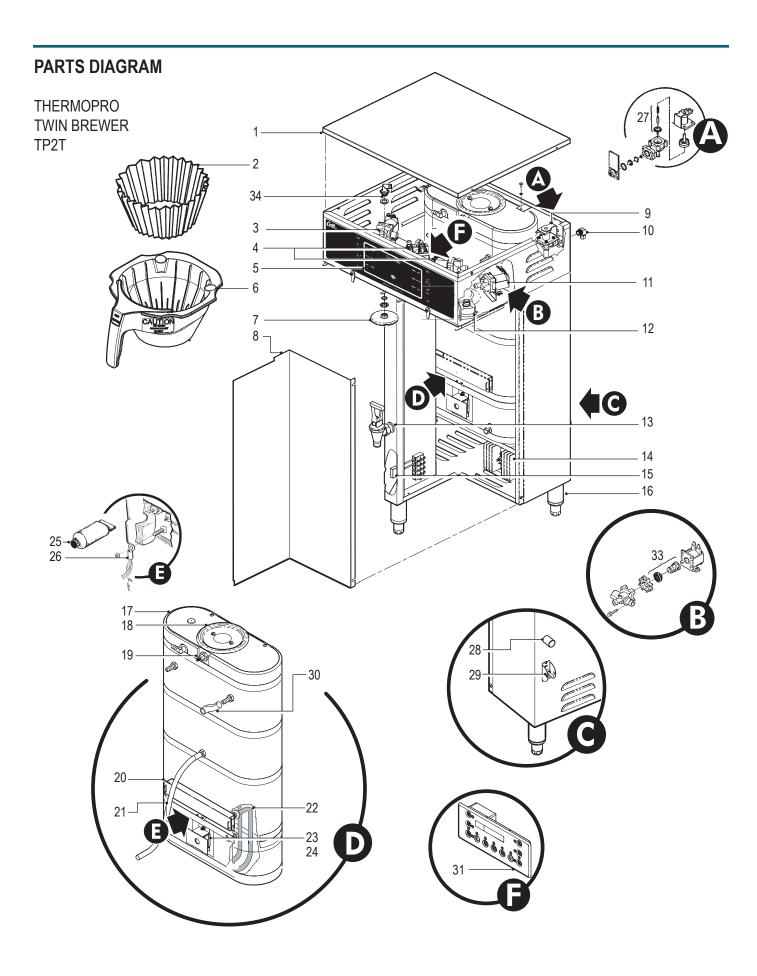
Select and press desired brew button. Brewing will begin immediately.



WARNING TO AVOID SCALDING, Do not remove brewcone while brew light is flashing.

ThermoPro Programming Guide



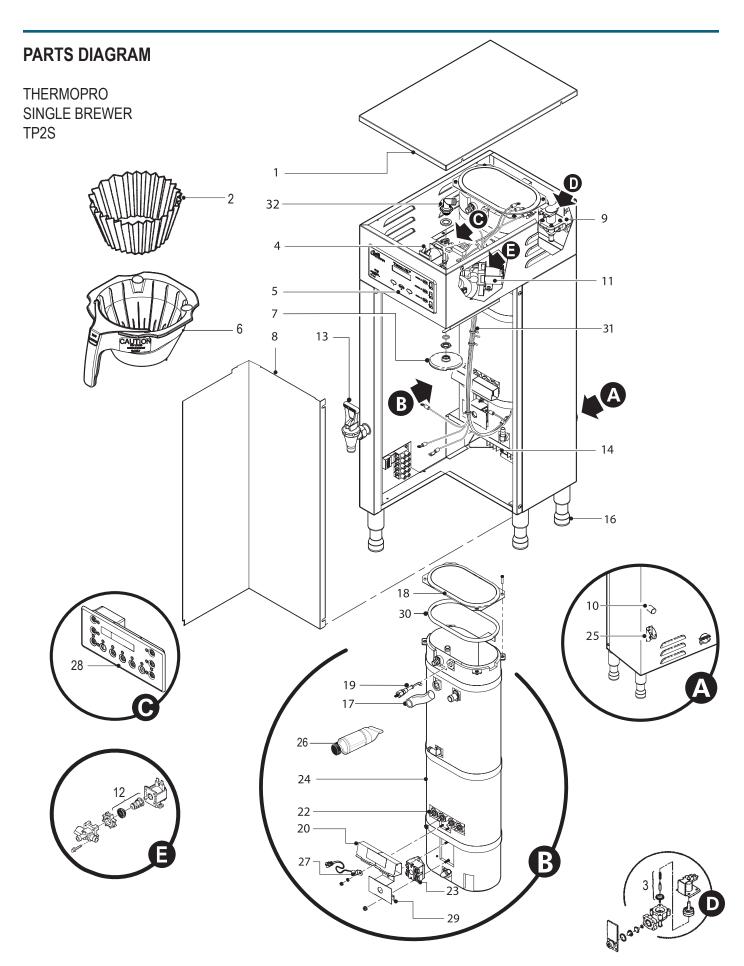


ILLUSTRATED PARTS LIST

THERMOPRO TWIN BREWER TP2T

ITEM №	PART №	DESCRIPTION
1	WC-5459	COVER, TOP WRAP
2	GEM-6	FILTER, 500/PKG (USE WITH WC-3417)
3	WC- 37121*	KIT, DUMP VALVE BREW LEFT
4	WC- 844-101*	VALVE, BY-PASS W/RESISTOR
5	WC-39442	LABEL, UCM OVERLAY TP2T TWIN 3-BATCH CURTIS
5A	WC-39415	LABEL, UCM OVERLAY TWIN 2-BATCH CURTIS
5B	WC-39414	LABEL, UCM OVERLAY TWIN 1-BATCH CURTIS
6	WC-3417	BREW CONE,ASSY W/SPLASH POCKET BROWN COF
7	WC-29050	SPRAYHEAD, ADVANCED FLOW
8	WC-58037-101	COVER, CENTER WRAP TP 90°
9	WC- 847*	VALVE, WATER INLET 2GPM 120V 10W
10	WC-2402P	ELBOW, 3/8"FL x 3/8" NPT PLATED
11	WC-37122*	KIT, DUMP VALVE BREW RIGHT
12	WC- 442	SOLENOID, LOCK BREW CONE RIGHT /LEFT 120V
12A	WC- 441	SOLENOID, LOCK BREWCONE LEFT (OLDER UNITS)
13	WC-1825	FAUCET, ASSEMBLY HOT WATER TP2S
14	WC-8559	RELAY, SOLID STATE W/INTEGRATED HTSNK
15	WC-8591*	CAPACITOR
16	WC-3528	LEG, 4" ADJUSTABLE 3/8-16 THRD ITALIAN STYLE
17	WC-62030	TANK, COMPLETE TP2T ULTEM FITTINGS
18	WC-37008	KIT, TANK LID ROUND
19	WC-5502-01*	KIT, PROBE, ASSY WATER LEVEL
20	WC-4382	GUARD, SHOCK HEATING ELEMENTS
21	WC-5310*	TUBE, 5/16" I.D. X 1/8" SILICONE
22	WC- 934-04*	ELEMENT, HEATING 2.5 KW 220V W/JAM NUTS
23	WC- 522*	THERMOSTAT, RESET
24	WC-43055	GUARD, SHOCK RESET THERMOSTAT
25	WC-5231*	COMPOUND, SILICONE
26	WC-1438-101*	SENSOR, HEATING TANK
27	WC-3765L*	KIT, VALVE REPAIR USE ON WC-825 & WC-826
28	WC-1501	FUSE HOLDER
29	WC- 102*	SWITCH, TOGGLE 125/250 VAC RESISTIVE
30	WC-5350*	TUBE, ½ ID x 1/8W SILICONE
31	WC-37176*	KIT, UCM & LABEL INSTRUCTIONS THERMOPRO
32	WC-13335	HARNESS ASSY, COMPLETE TP2T10 (NOT SHOWN)
33	WC-37132*	KIT, DUMP VALVE WC-820WC-821,WC-844
34	WC-2977-101K*	KIT,SPRAYHEAD FITTING PLASTIC

^{*} RECOMMENDED PARTS TO STOCK.

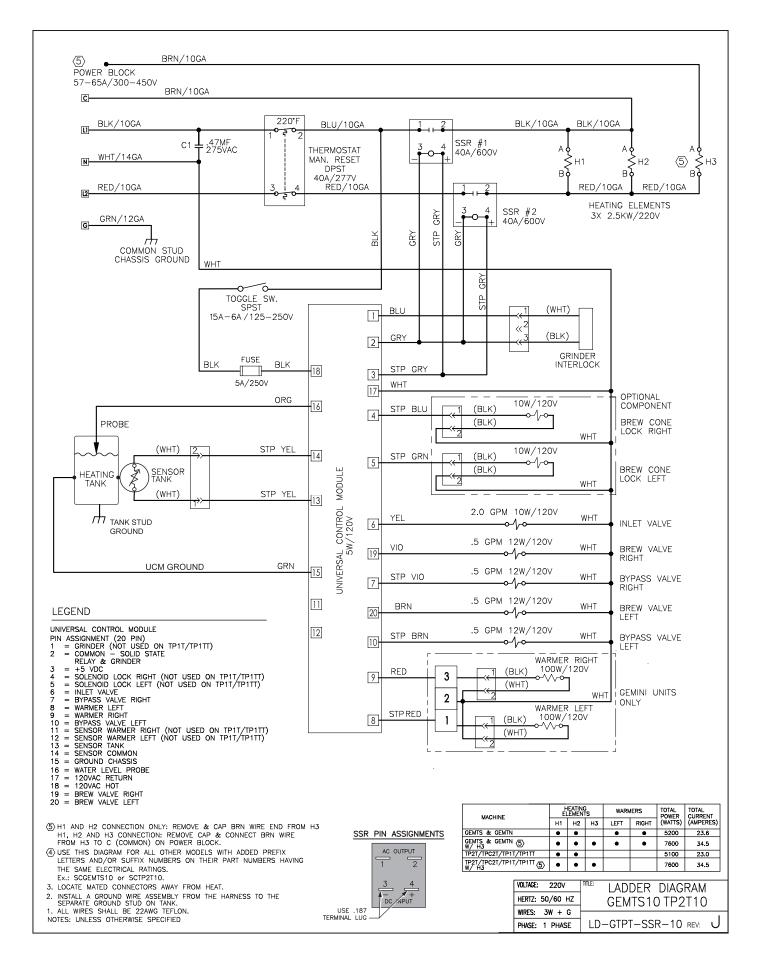


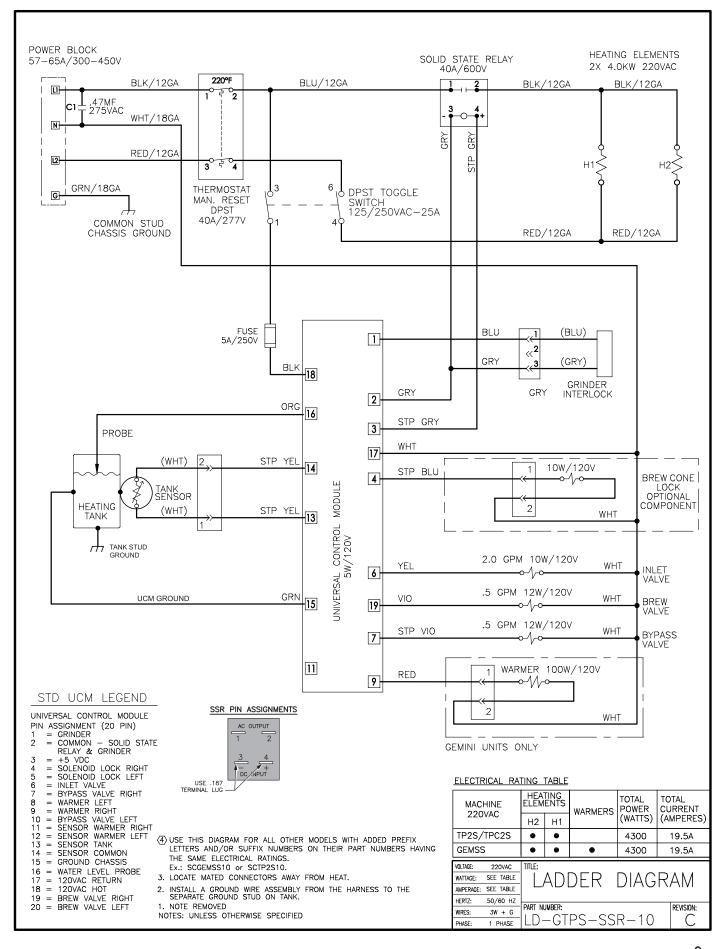
ILLUSTRATED PARTS LIST

THERMOPRO SINGLE BREWER TP2S

ITEM №	PART №	DESCRIPTION
1	WC-61509	COVER, TOP WRAP
2	GEM-6	FILTERS, 500/PKG (USE WITH WC-3417)
3	WC-3765L*	KIT, INLET VALVE REPAIR USE ON WC-826L/WC-847
4	WC- 844-101*	VALVE, ADJ BY-PASS
5	WC-39444	LABEL, UCM OVERLAY TP2S 3-BATCH CURTIS
5A	WC-39417	LABEL, UCM OVERLAY TP2S 1-BATCH CURTIS
5B	WC-39416	LABEL, UCM OVERLAY TP2S 2-BATCH CURTIS
6	WC-3417	BREW CONE, ASSY W/SPLASH POCKET BROWN COF
7	WC-29050*	SPRAYHEAD ASSY, ADVANCED FLOW
8	WC-58037-101	COVER, CENTER WRAP
9	WC- 847*	VALVE, WATER INLET 2GPM 120V 10W
10	WC-1501	FUSE HOLDER W/5A FUSE
11	WC-37122*	KIT, DUMP VALVE BREW RIGHT
12	WC-37132*	KIT, DUMP VALVE WC-820WC-821,WC-844
13	WC-1825	FAUCET ASSY, HOT WATER TP2S/2T
14	WC-8559*	RELAY, SOLID STATE 40A W/HEAT SINK
14A	WC-8556-101	HEATSINK, ASSY W/OPTICAL BD (OLDER UNITS)
15	WC-8591*	CAPACITOR, X2
16	WC-3528	LEG, 4" ADJUSTABLE 3/8-16 THREAD ITALIAN STYLE
17	WC-5350*	TUBE, ½ ID x 1/8W SILICONE
18	WC-5853-102	COVER, TOP HEATING TANK GEN USE
18A	WC-5851	COVER, TANK W/NOTCHES
19	WC-5502-01*	KIT, PROBE, ASSY WATER LEVEL
20	WC-4382	GUARD, SHOCK HEATING ELEMENTS
21	WC-5310*	TUBE, 5/16" I.D. X 1/8" SILICONE (NOT SHOWN)
22	WC- 904-04	ELEMENT, HEATING 1.6KW 120V W/JAM NUTS
22A	WC- 906-04*	ELEMENT, HEATING 2KW 220V W/JAM NUTS
23	WC- 522*	THERMOSTAT, RESET
24	WC-62031	TANK, COMPLETE TP2S DV ULTEM FITTINGS
24A	WC-62032	TANK, COMPLETE TP2S ULTEM FITTINGS
25	WC- 103*	SWITCH, TOGGLE NON-LIT DPST 25A 125/250VAC RST
26	WC-5231*	COMPOUND, SILICONE
27	WC-1438-101*	SENSOR, HEATING TANK
28	WC- 723*	CONTROL MODULE, 120V TP2S/TP2T
29	WC-43055	GUARD, SHOCK RESET THERMOSTAT
30	WC-43062*	GASKET, TANK LID
31	WC-13286	HARNESS ASSY, COMPLETE TP2S
32	WC-2977-101K*	KIT, SPRAYHEAD FITTING ULTEM

^{*} RECOMMENDED PARTS TO STOCK.





Cleaning the ThermoPro

Regular cleaning and preventive maintenance is essential in keeping your coffee brewer looking and working like new. To clean the coffee brewer and components, prepare a mild solution of detergent and warm water.

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.

DAILY CLEANING

- 1. Wipe exterior surfaces with a damp cloth, removing spills and debris.
- Slide the brewcone out and clean it. Wipe the sprayhead area with a cloth soaked in a mild detergent solution.
- 3. Rinse and dry the brewcone and sprayhead area.
- Drain drip trays of coffee.
- 5. Dry the tray.

WEEKLY CLEANING

- Turn off unit at the power switch, behind the unit. Allow the brewer to cool.
- 2. Clean the sprayhead and dome plate area.
 - a. Remove the sprayhead, unscrewing counterclockwise from the dome plate.
 - b. Thoroughly clean and rinse the dome plate area.
 - c. Clean the brewcone rails with a brush soaked with a mild detergent solution. Rinse the area with a cloth soaked with clean water, removing any residual detergent.
 - d. Dry the area.
 - c. Attach the sprayhead.

Cleaning the Thermoserver

- 1. Drain coffee from the server.
- Fill the liner with a mild detergent solution and let it stand for 10 to 15 minutes.
- 3. After about 15 minutes take a sponge brush and scrub out the stainless steel liner.
- 4. When clean, drain out the soapy solution from the server.
- 5. Fill the server with clean water to rinse detergent from inside the unit. Repeat this rinsing until the water runs clear.

CLEANING OF THERMOSERVER FAUCET

- 1. Remove the faucet handle assembly. Take hold of the bonnet and turn counterclockwise to unscrew it from the faucet.
- 2. Clean the handle assembly with a mild detergent solution. When clean, rinse the handle with water. Inspect for cracks or tears in the seat cup. Replace if damaged.
- 3. Clean the coffee level gauge glass.
 - a. Remove the sight glass cover by pulling up and off from the front of the server.
 - b. Using the narrow brush provided for this purpose, brush out the inside of the glass with a detergent solution. Rinse the sight glass tube of all detergent residue.
 - c. Pay special attention to the small gauge glass liquid level hole on the body of the faucet. You can brush this out with a small pipe cleaner.
 - d. Replace the sight glass. Make sure the top and bottom silicone seals are seated.



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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, "0" 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.

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