



Low Profile Airpot Coffee Brewing System



Model TLP12A, with PourPot, shown

READ AND SAVE THESE INSTRUCTIONS

NOTICE TO INSTALLER: Please leave this booklet with the machine.

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Due to continued product improvement, the products illustrated/photographed in this guide may vary slightly from the actual product.

Key Features

- External/Non-Immersed Temperature Sensor – Reduces mineral build-up.
- Pulse Brew Technology – Choice of three pulse brew options for optimal coffee flavor and brewing excellence
- Brew Cycle Counter – Tracks brew cycles.
- Programmable Temperature Control – Factory preset to 200°F (92°C). Temperature is easily adjusted in 2°F/1°C increments from 170°F to 206°F (77°C to 97°C) for optimum coffee quality. Keeps brew temperature constant. Easily handles back-to-back brewing cycles. Plus, liquid level control interface prevents element burnout.

Specifications (Selected Models)

Electrical Supply Requirements

MODEL #	DESCRIPTION	PHASE	VOLTS	AMPS	HEATING CONFIG	WIRE	WATTS	HERTZ	CAPACITY
TLP	Black texture finish	1 PH	120 V	12.5 A	1 x 1450 W	2W + G	1500 W	50/60 Hz	4.5 gal/hr [17.0 l/hr]
TLP12A	Stainless steel finish	1 PH	120 V	12.5 A	1 x 1450 W	2W + G	1500 W	50/60 Hz	4.5 gal/hr [17.0 l/hr]
TLP12A19	Stainless steel finish, tall	1 PH	120 V	12.5 A	1 x 1450 W	2W + G	1500 W	50/60 Hz	4.5 gal/hr [17.0 l/hr]

Dimensions

Water Supply Requirements

MODEL #	HEIGHT	WIDTH	DEPTH	SHIP WEIGHT	SHIP CUBE	WATER CONNECTOR	WATER PRESSURE	MIN. FLOW RATE
TLP	17.76" [45.1 cm]	10.65" [27.1 cm]	18.39" [46.7 cm]	29.0 lbs [13.2 kg]	3.92 cu. ft. [0.11 m ³]	1/4" flare	20 - 90 psi [138 - 620 kPa]	1.0 gpm [3.8 lpm]
TLP12A	17.79" [45.1 cm]	10.65" [27.1 cm]	18.69" [47.5 cm]	29.0 lbs [13.2 kg]	3.92 cu. ft. [0.11 m ³]	1/4" flare	20 - 90 psi [138 - 620 kPa]	1.0 gpm [3.8 lpm]
TLP12A19	19.00" [48.3 cm]	10.65" [27.1 cm]	18.69" [47.5 cm]	29.0 lbs [13.2 kg]	3.92 cu. ft. [0.11 m ³]	1/4" flare	20 - 90 psi [138 - 620 kPa]	1.0 gpm [3.8 lpm]

Following are the factory default settings for the TLP brewer:

- Brew Temperature = 200°F (92°C)
- Brew Volume = 74 oz./2.2 l (Full brew)
37 oz./1.1 l (Half brew)
- Pulse Brew = Off

Symbols



This is the safety alert symbol. It is used to alert you to potential physical injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.



DANGER - Indicates a hazardous situation which, if not avoided, will result in death or serious injury.



WARNING - Indicates a hazardous situation which, if not avoided, could result in death or serious injury.



CAUTION - Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.



NOTICE - Indicates a situation which, if not avoided, could result in property damage.



IMPORTANT - Provides information and tips for proper operation.



SANITATION REQUIREMENTS



WARNING - This product can expose you to chemicals including Acrylamide and Bisphenol A (BPA), which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information visit www.P65Warnings.ca.gov.

Important Safeguards/Conventions



WARNING:

- Make sure that this appliance is installed and grounded according to the INSTALLATION INSTRUCTIONS by qualified personnel before attempting to use it. Failure to follow the INSTALLATION INSTRUCTIONS could result in personal injury or void the warranty.
- This appliance is designed for commercial use. Any service other than cleaning and preventive maintenance should be performed by an authorized Wilbur Curtis service technician.
- To reduce the risk of fire or electric shock, DO NOT open the service panels. There are no user serviceable parts inside.
- Keep hands, arms and other items away from hot surfaces of the unit during operation.
- Clean the appliance and any dispensers completely before using them for the first time according to the CLEANING INSTRUCTIONS. Clean them regularly as instructed in the CLEANING INSTRUCTIONS.
- Use this appliance only for its intended use, brewing/dispensing hot and/or cold beverages/water.
- This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.
- Avoid spillage onto the power (mains) connector.

CE Requirements

- This appliance must be installed in locations where it can be overseen by trained personnel.
- For proper operation, this appliance must be installed where the temperature is between 5°C to 35°C.
- This appliance is not suitable for outdoor use.
- This appliance shall not be tilted more than 10° for safe operation.
- An electrician must provide electrical service as specified in conformance with all local and national codes. For safe use, an all-pole disconnection must be incorporated into the fixed wiring in accordance with the wiring rules outlined in clause 7.12.2 of IEC 60335 for meeting the minimum electrical safety of this standard.
- This appliance must not be cleaned by water jet.
- This appliance can be used by persons aged from 18 years and above if they have been given supervision or instruction concerning use of the appliance in a safe way and if they understand the hazards involved.
- Keep the appliance and its cord out of reach of children aged less than 18 years.
- Appliances can be used by persons 18 years and above with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved.
- Children under the age of 18 years should be supervised to ensure they do not play with the appliance.
- If the power cord is ever damaged, it must be replaced by the manufacturer or authorized service personnel with a special cord available from the manufacturer or its authorized service personnel in order to avoid a hazard.
- Machine must not be immersed for cleaning.
- Cleaning and user maintenance shall not be made by children unless they are older than 18 years and supervised.
- This appliance is intended to be used in household and similar applications such as:
 - staff kitchen areas in shops, offices and other working environments;
 - by clients in hotels, motels and other residential type environments;
 - bed and breakfast type environments.
- This appliance not intended to be used in applications such as:
 - farm houses
- Access to the service areas permitted by Authorized Service personnel only.
- The A-Weighted sound pressure level is below 70 dBA.

Disposal of Equipment

- This product contains plastic, metal and electronic components and is considered e-waste. At the end of its life, this product must not be disposed of in normal household waste but can be instead delivered to a collection point for recycling electric and electronic appliances, consult with the local municipality for proper disposal guidelines.



WARNING: Installation is to be performed only by a qualified installer.



WARNING: Improper electrical connection may result in an electric shock hazard or damage the unit. This appliance must be properly grounded.



NOTICE: DO NOT connect this appliance to a hot water supply. The water inlet valve is not rated for hot water. Do not exceed the maximum water pressure stated in the **SPECIFICATIONS** section.



IMPORTANT: Observe all governing codes and ordinances.

Installation Instructions

Installation Requirements

- A secure surface capable of supporting the weight of the appliance.
- For units without an attached cord set attached or dual voltage units set up for use with 220 - 240 Volts:
Appropriately sized, UL listed, grounding type power cable to meet the electrical specifications for the appliance. If you have questions about the correct cable size and length, consult a qualified installer. If the appliance will be hard wired to a junction box, the power cable must be long enough so that the unit can be moved for cleaning underneath.
- A grounded electrical connection to an electrical circuit that meets the electrical specifications of the appliance (see **SPECIFICATIONS**). The circuit must be protected by the appropriate sized circuit breaker. If you are not certain that the existing circuit meets the requirements for your unit, consult a licensed electrician.
- A water filtration system is required to maintain trouble-free operation. Wilbur Curtis Co., Inc. recommends a Wilbur Curtis approved water filter. See the Curtis Equipment Catalog for a full line of Wilbur Curtis approved water filters.
- Potable water supply line connection from the water filter capable of supplying the minimum flow rate required by the specifications. The water supply line must be able to connect to the flare fitting on the back of the unit. See the **SPECIFICATIONS** section for the correct size. The water line should also be capable of being controlled by a shut off valve. Do not connect the water line to a saddle valve or needle valve.

IEC requires the following water connection:

- 1 A quick disconnect or additional coiled tubing (at least two times the depth of the appliance) is required so that it can be moved for cleaning underneath.
- 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.

The International Plumbing Code of the International Code Council and the Food and Drug Administration (FDA) Food Code manual, direct that this equipment must be installed with adequate back-flow prevention in compliance with federal, state and local codes. For units installed outside of the U.S.A., make sure that the installation is in compliance with the applicable plumbing/sanitation code for your area.

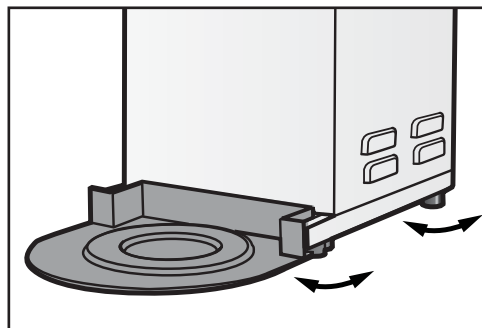
Installation

Leveling



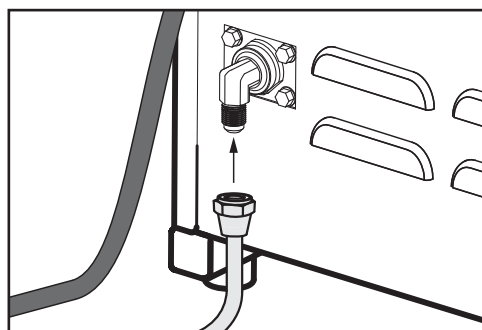
WARNING: Use the leveling legs to level the brewer only. Do not use them to adjust brewer height. Do not extend them higher than necessary.

- 1 Position the brewer on the counter top. Level it left to right and front to back by turning the bottom of the legs.



Connect the Water Supply

- 2 Flush the water supply line prior to installation to purge air and debris from the water filter and tubing.
- 3 Connect the water supply line to the flare fitting on the back of the brewer. Leave the water supply valve closed until the power is connected.

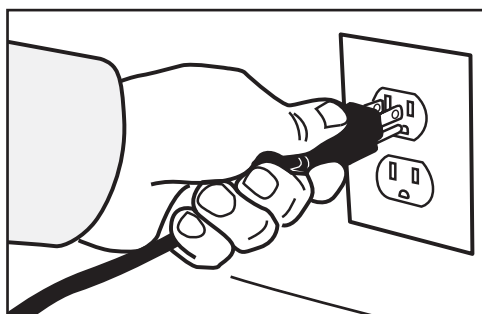


Connect the Power Cord



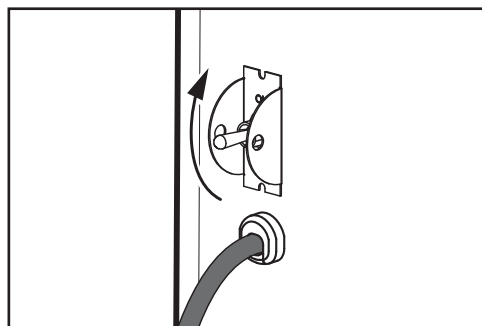
WARNING: Connect the power cord to the appropriate type and size electrical outlet. If the electrical outlet is not compatible with the power cord, have it upgraded by a licensed electrician. Do not modify the power plug. Do not use an extension cord. Do not use a power cord/plug that is damaged.

- 4 Connect the power cord to the appropriate electrical outlet.



Power Up the Brewer

- 5 Turn on the water supply valve.
- 6 Make sure that the circuit breaker supplying power to the electrical outlet is on.
- 7 Turn the toggle switch on the back of the brewer to the ON position. The water tank will start to fill. While the tank is filling, inspect the water supply line for leaks.



continued...

Powering Up the Brewer (cont.)

- 8 When the water in the tank rises to the correct level, the heating element will turn on automatically. Depending on the incoming water temperature and the electrical specifications, the water tank typically requires 20 to 30 minutes to reach the factory set operating temperature. When the water has heated, the **READY** light on the control panel will come on.



IMPORTANT: When operating the brewer at higher elevations, reduce the factory set operating temperature (200°F/92°C) by 2°F/1°C for each 1000 ft./300 m of elevation above 4000 ft./1200 m. See *PROGRAMMING GUIDE*.

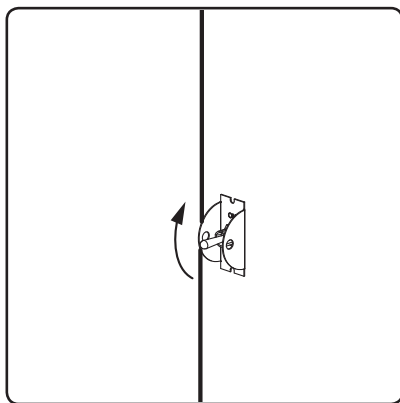
- 9 Before brewing for the first time, dispense 12 oz./350 ml of hot water through the hot water faucet to help purge air from the tubing inside the brewer.
- 10 Perform a brew cycle of a least 12 oz./350 ml to purge any remaining air from the system. See *OPERATING INSTRUCTIONS*. During the initial brew cycle and whenever the filter is replaced, you may hear the sounds of air being purged from the filter, tubing and water tank.

Brewing Instructions

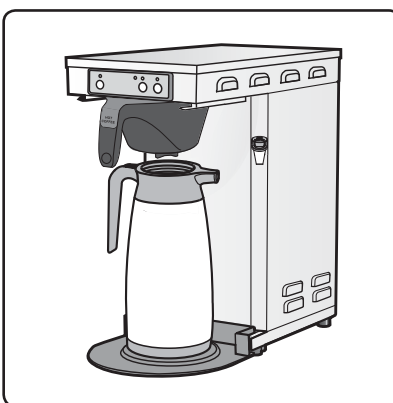


WARNING - TO AVOID SCALDING, AVOID SPLASHING. Keep body parts clear of the brewer during brewing. Do not remove the brew basket while the BREW light is on.

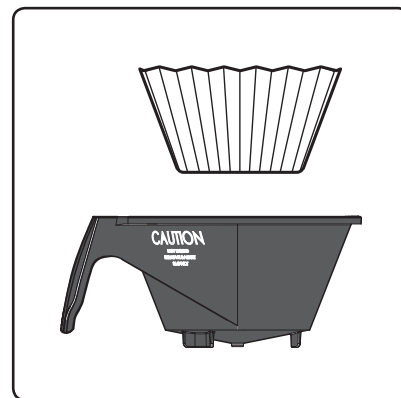
The Brewer is factory preset for optimal performance.



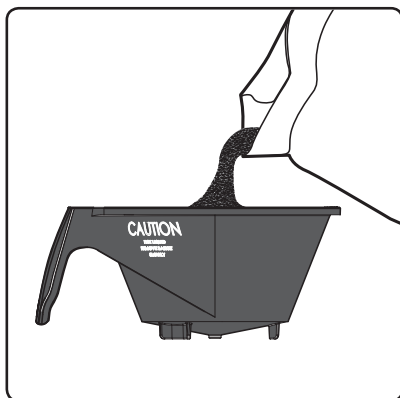
- 1 The brewer should be ON. Confirm at the rear toggle switch, then press the ON/OFF button on the control panel. The READY light should be lit.



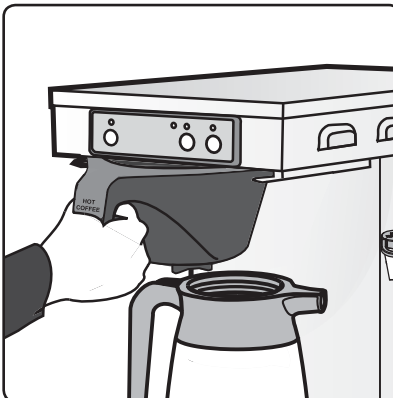
- 2 Center an empty airpot or pourpot under the brew basket.



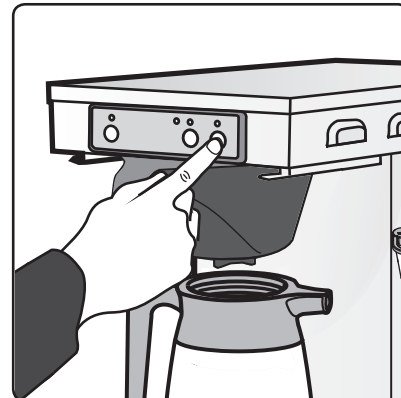
- 3 Insert a clean paper filter into the brew basket.



- 4 Fill with the proper amount of ground coffee. Level the coffee in the filter.



- 5 Slide the filled brew basket into the brew rails under the control panel. Slide it all the way back until it stops.



- 6 Press the appropriate brew button. Brewing will begin immediately.

The brewer will brew coffee based on the settings programmed into the control panel. To change the settings, see the **PROGRAMMING GUIDE** section.



WARNING: HOT SURFACES - To avoid injury, allow the brewer and dispenser(s) to cool before cleaning.



NOTICE - Do not use cleaning liquids, compounds or powders containing chlorine (bleach) or corrosives. These products promote corrosion and will damage the finishes. **USE OF THESE PRODUCTS WILL VOID THE WARRANTY.**

Cleaning The Brewer - Daily



WARNING: DO NOT immerse the brewer in water or any other liquid.

The brewer should be OFF. Turn the brewer off by flipping the rear toggle switch to the OFF position.

- 1 Remove the dispenser(s). Wipe exterior brewer surfaces with a damp cloth to remove spills and debris.
- 2 Remove the brew basket(s) and clean them in a mild detergent solution. Use a soft bristled brush for hard to clean areas. Rinse with clean water, then dry.
- 3 Wipe the spray head area with a cloth soaked in a mild detergent solution. Rinse with a cloth soaked with clean water removing any residual detergent. Use a clean, soft cloth to dry.
- 4 Dump out the drip tray(s) (if applicable). Rinse with clean water, then dry with a soft, clean cloth.

Cleaning The Brewer - Weekly

The brewer should be OFF. Turn the brewer off by flipping the rear toggle switch to the OFF position.

- 1 Remove the spray head(s), unscrewing counterclockwise from the dome plate.
- 2 Thoroughly clean and rinse the dome plate area.
- 3 Clean the brew basket rails with a brush soaked with a mild detergent solution. Rinse the area with a cloth soaked with clean water, removing any residual detergent.
- 4 Dry the area with a soft, clean cloth.
- 5 Reattach the spray head(s).

Cleaning the Airpot/Pour Pot (Daily)

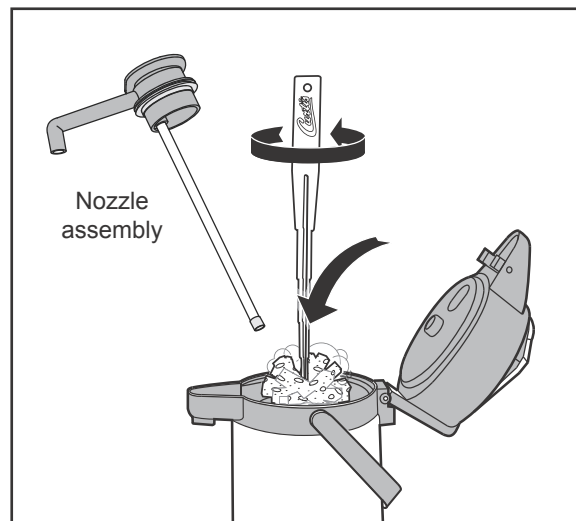


WARNING: DO NOT immerse the airpot/pour pot or lid assembly in water or any other liquid. Do not place the airpot/pour pot or lid in a dishwasher. Placing a airpot or pour pot in a dishwasher will void the warranty.

Start by preparing a mild solution of detergent and warm water. Remove the airpot/pour pot from the brewer and remove/open the lid. On airpots, remove the nozzle assembly. Rinse.

Cleaning Airpots

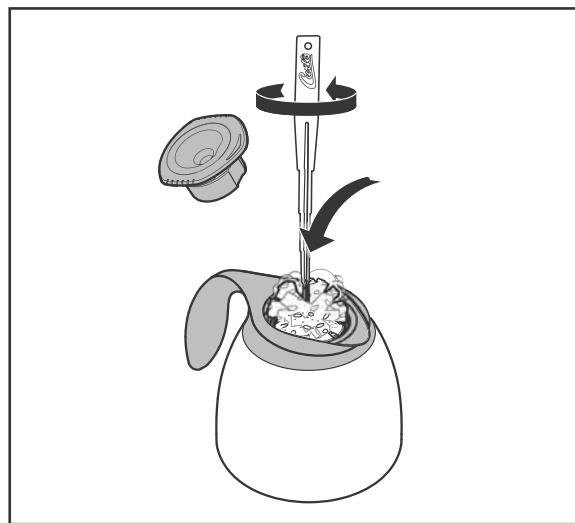
- 1 **Wash** - Wipe the exterior surfaces of the airpot and lid with a sponge soaked with the detergent solution to remove spills and debris. Fill the liner with the detergent solution. Use a sponge cleaning brush to clean inside. Clean the spout/siphon tube with the detergent solution.
- 2 **Rinse** - Rinse the airpot and the spout/siphon tube with clean, warm water.
- 3 **Sanitize** - Sanitize the interior of the airpot, the spout/siphon tube and the lid, using a commercial sanitizer suitable for food grade applications. Swab, brush or pressure spray the sanitizing solution according to the directions on the package.
- 4 **Air Dry** - Turn the airpot and lid upside down. Allow all parts to air dry.



TLXA2201G000 shown. Appearance and size varies with model number.

Cleaning Pour Pots

- 1 **Wash** - Wipe the exterior surfaces of the pour pot and lid with a sponge soaked with the detergent solution to remove spills and debris. Fill the liner with the detergent solution. Use a sponge cleaning brush to clean inside.
- 2 **Rinse** - Rinse the pour pot and the lid with clean, warm water.
- 3 **Sanitize** - Sanitize the interior of the pour pot and the lid, using a commercial sanitizer suitable for food grade applications. Swab, brush or pressure spray the sanitizing solution according to the directions on the package.
- 4 **Air Dry** - Turn the pour pot and lid upside down and allow to air dry.



CLXP6401S100 shown. Appearance and size varies with model number.



NOTE: The stem on the bottom of TFT series pour pot lids have a built-in sensor used for the FreshTrac® feature. Keep this stem free from coffee oil build-up for proper operation. After cleaning, inverting the lid for 30 seconds resets the FreshTrac timer.

Programming Options

Your Curtis TLP brewer is factory preset for optimal performance. Generally, there will not be a need to change the programming. If necessary, the following operating parameters can be changed:

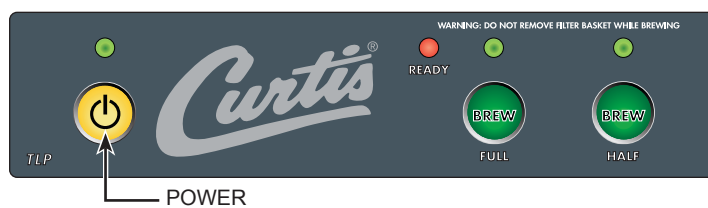
- Brew temperature
- Brew volume (FULL and HALF BREW)
- Pulse brew
- Energy save mode

In the event of a power loss, the brewer will remember ALL program settings.

Changing the Brew Temperature (Factory Default: 200°F/92°C)

The following steps can also be used to read the existing temperature setting. The brew temperature range is 170° to 206°F (77°C to 97°C).

- 1 The rear toggle switch must be in the ON position. The control panel must be off (POWER light off). Press the POWER button if necessary.
- 2 Press and hold the HALF BREW button. Press and release the POWER button.
- 3 Continue to hold down the HALF BREW button until the READY light starts to flash, then release the HALF BREW button.
- 4 To read the existing temperature setting press the HALF BREW button for 2 seconds. After a periodic pause, each (quick) flash represents 2°F starting at 170°F. 19 flashes represents the maximum temperature of 206°F. See TABLE 1.



# of Flashes	Temperature	# of Flashes	Temperature
1	170°F/77°C	11	190°F/88°C
2	172°F/78°C	12	192°F/89°C
3	174°F/79°C	13	194°F/90°C
4	176°F/80°C	14	196°F/91°C
5	178°F/81°C	15	198°F/92°C
6	180°F/82°C	16	200°F/93°C
7	182°F/83°C	17	202°F/94°C
8	184°F/84°C	18	204°F/96°C
9	186°F/86°C	19	206°F/97°C
10	188°F/87°C		

TABLE 1

- 5 To exit without changing the temperature, press the POWER button. To change the temperature, press and hold the HALF BREW button, while watching the number of flashes. Release the HALF BREW button when the desired temperature is indicated according to TABLE 1.
- 6 Press the POWER button to set and exit.

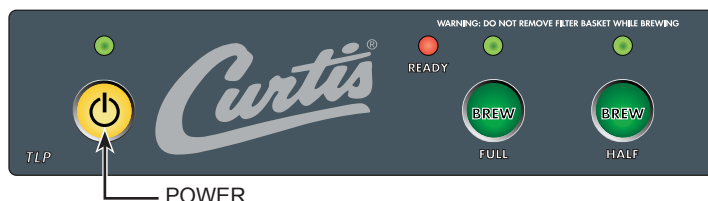
Programming Options (cont.)

Changing the Full Brew Volume (Factory Default: 74oz./2.2L)



WARNING: These steps involve working with hot water. Avoid splashing and spilling.

- 1 Turn the brewer on and wait for the BREW light to come on solid.
- 2 Make sure the brew basket is empty and pushed all the way in until it stops below the control panel.
- 3 Turn off the control panel by pressing and releasing the POWER button.
- 4 Press and hold the HALF BREW button. Press and release the POWER button.
- 5 Continue to hold down the HALF BREW button until the READY light starts to flash, then release the HALF BREW button.
- 6 Press and hold the FULL BREW button until hot water starts to flow, then release.
- 7 When the desired volume is reached, press FULL BREW again to stop the flow and set the brew volume.

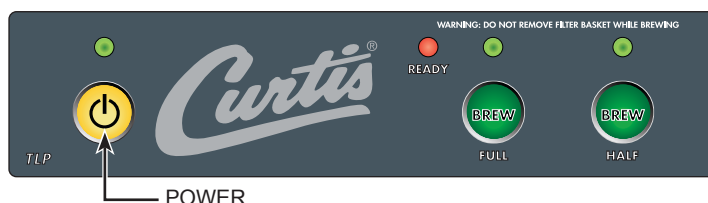


Changing the Half Brew Volume (Factory Default: 37oz./1.1L)



WARNING: These steps involve working with hot water. Avoid splashing and spilling.

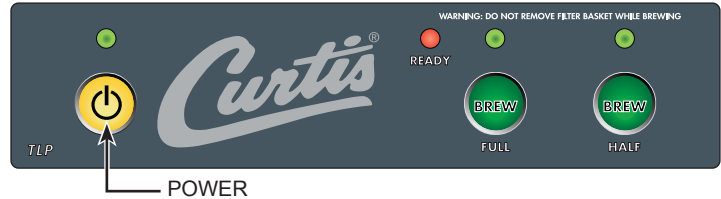
- 1 Turn the brewer on and wait for the BREW light to come on solid.
- 2 Make sure the brew basket is empty and pushed all the way in until it stops below the control panel.
- 3 Turn off the control panel by pressing and releasing the POWER button.
- 4 Press and hold the HALF BREW button. Press and release the POWER button.
- 5 Continue to hold down the HALF BREW button until the READY light starts to flash, then release the HALF BREW button.
- 6 Press and hold the HALF BREW button again until hot water starts to flow, then release.
- 7 When the desired volume is reached, press HALF BREW again to stop the flow and set the brew volume.





Programming Options (cont.)

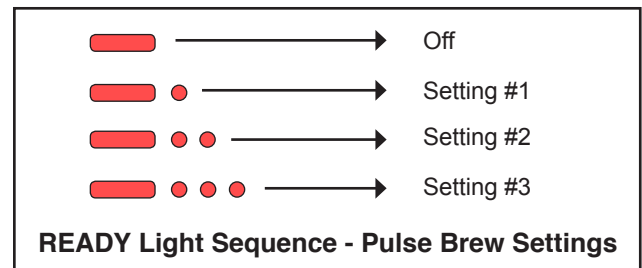
Accessing the Pulse Brew Feature (Factory Default = OFF)

- 1 The rear toggle switch must be in the ON position. The control panel must be off (POWER light off). Press the POWER button if necessary.
- 2 Press and hold the HALF BREW button. Press and release the POWER button.
- 3 Continue to hold down the HALF BREW button. When the READY light stops flashing, continue to hold the HALF BREW button down until begins to flash again.



- 4 The READY light will flash a code indicating the current setting.
- **Setting #1** provides a pulse of 40 seconds ON, 40 seconds OFF, then ON until the end of the brew cycle.
 - **Setting #2** provides a pulse of 30 seconds ON, 5 seconds OFF, repeated four times, then continuously ON until the end of the brew cycle.
 - **Setting #3** is 40 seconds ON, 40 seconds OFF, 60 seconds ON, 25 seconds OFF, then ON until the end of the brew cycle.

Long flash = 
Short flash = 
Legend




Changing the Pulse Brew Setting

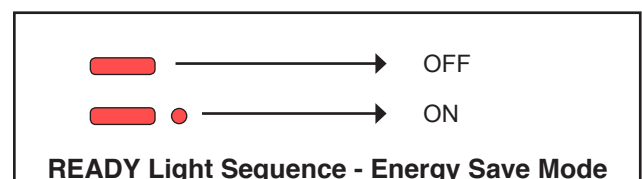
- 1 Press and hold the HALF BREW button until the READY light shows one quick flash. The brewer has jumped to the next setting.
- 2 Repeat **Step 1** until the READY light flashes the sequence that reflects the desired setting.
- 3 Press the POWER button to set and exit.

Energy Save Mode (Factory Default = OFF)

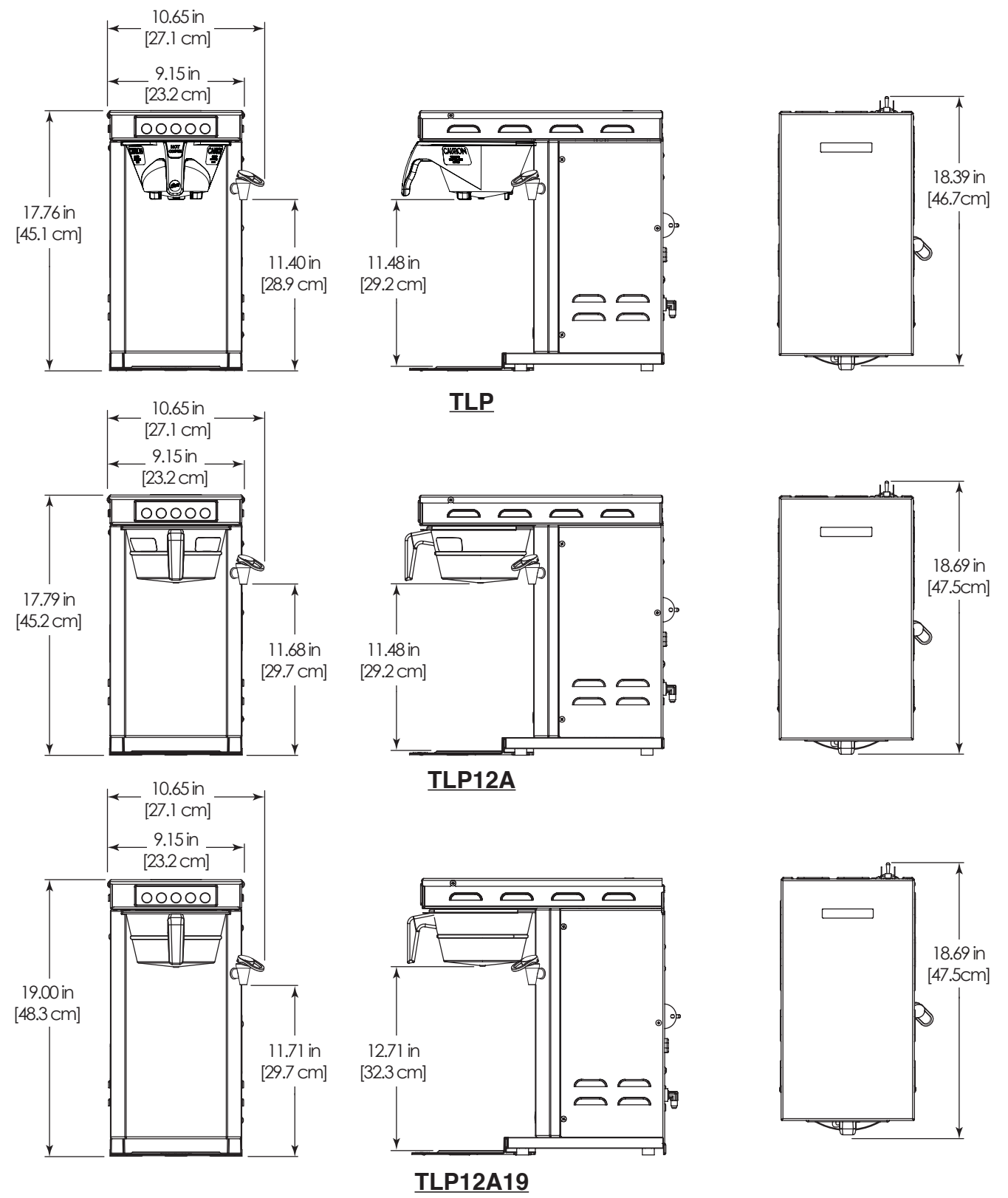
When energy save mode is ON, the water tank temperature reduces to 140°F (60°C) after 6 hours of no activity. After 26 hours of no activity, the heating circuit turns off completely. The POWER light flashes whenever the brewer is in energy save mode. To reactive the brewer, press any button.

- 1 The rear toggle switch must be in the ON position. The control panel must be off (POWER light off). Press the POWER button if necessary.
- 2 Press and hold the HALF BREW button. Press and release the POWER button.
- 3 Continue to hold down the HALF BREW button until the READY light stops flashing, then release.
- 4 The READY light will now flash to indicate the status of energy save mode (see diagram).
- 5 To change the setting, press and hold the HALF BREW button until the READY light shows one quick flash. The brewer has jumped to the opposite setting.
- 6 Press the POWER button to exit.

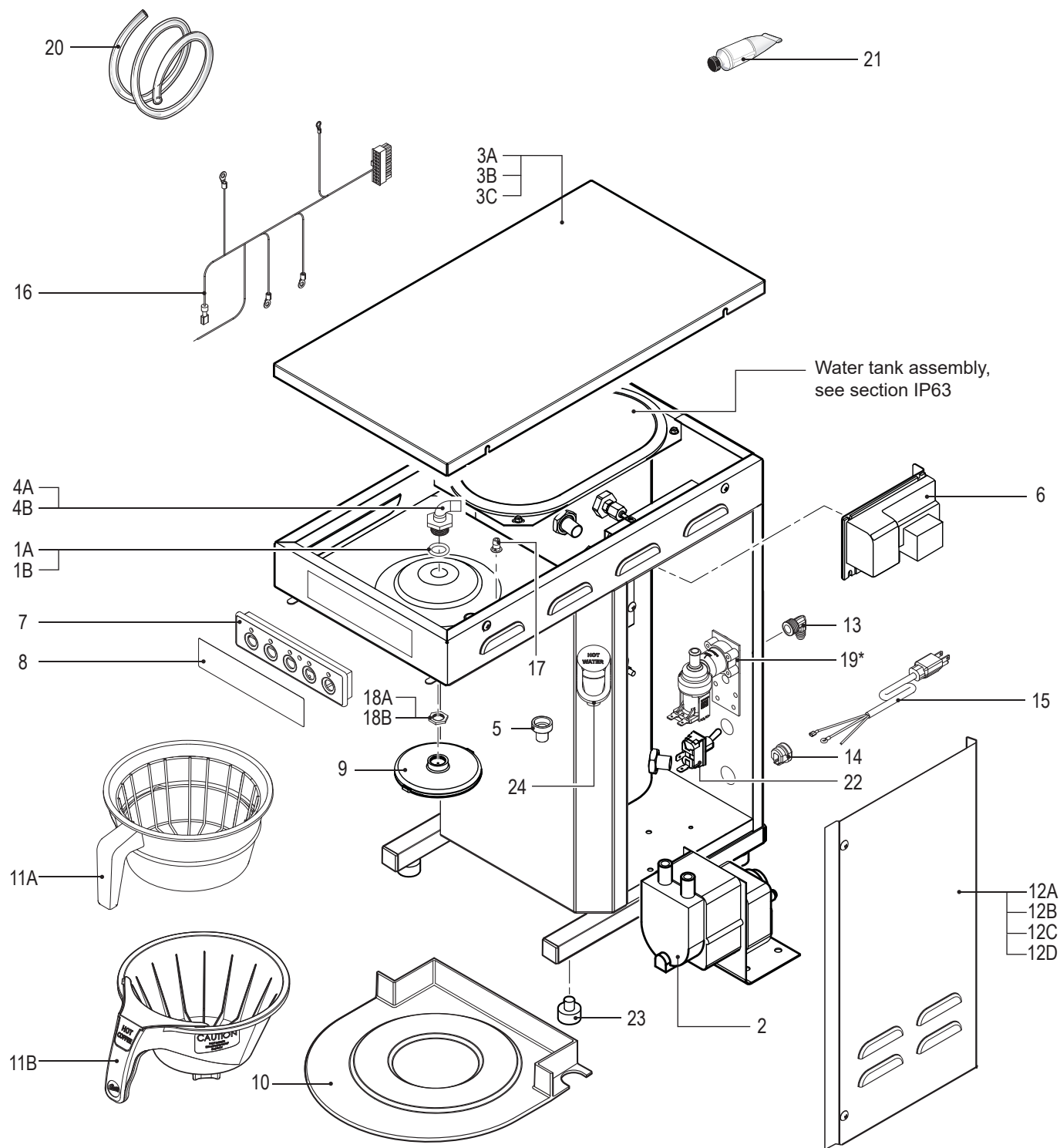
Long flash = 
Short flash = 
Legend



TLP Series, Low Profile, Airpot Coffee Brewers



TLP Series - Main Chassis - Exploded View



TLP Series - Main Chassis - Parts List

ITEM #	PART #	DESCRIPTION
1A ^a	WC-4320	O'RING, 0.487I.D.x 0.693OD x0.103CS BUNA-N #112
1B ^b	WC-43089	GASKET, 1.00OD X .625 I.D. X .030 THK WHITE EPDM 70 SHORE
2	WC-1040-101	PUMP, WATER DIRECT DRIVE 120V/60HZ TLP
3A ¹	WC-61336	COVER, TOP TLP
3B ^{2,3}	WC-61355	COVER, TOP SS TLP
3C ¹	WC-61336-101	COVER, TOP TLP
4A ^a	WC-2962K	KIT, FITTING SPRAYHEAD SS
4B ^b	WC-2962-101K	KIT, FITTING SPRAYHEAD KYNAR
5	WC-1806	SEAT CUP, SILICONE USE ON WC-1809 FAUCET
6	WC-715	CONTROL MODULE, UPM 120Vac TLP
7	WC-717	CONTROL BOARD, SMART CARD SWITCH ASSY COMPLETE TLP
8	WC-39662	LABEL, CONTROL PANEL TLP CURTIS LOGO
9	WC-29030*	SPRAYHEAD, ASSY ADVANCED FLOW ORANGE,USE W/PUMP MODELS ONLY
10	WC-66050	DRIP, TRAY TLP
11A	WC-3316	BREW CONE, W/HANDLE ASSY 7.1"D.W/WC-3317 & WC-3323 ALP/AP
11B	WC-3621-101	BREW CONE, NON-METAL UNIVERSAL (WITH SPLASH POCKET)

¹TLP, ²TLP12A, ³TLP12A19

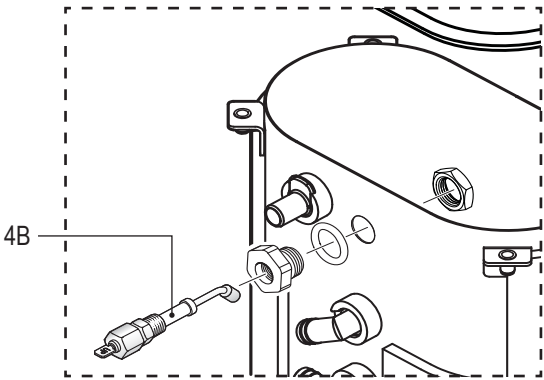
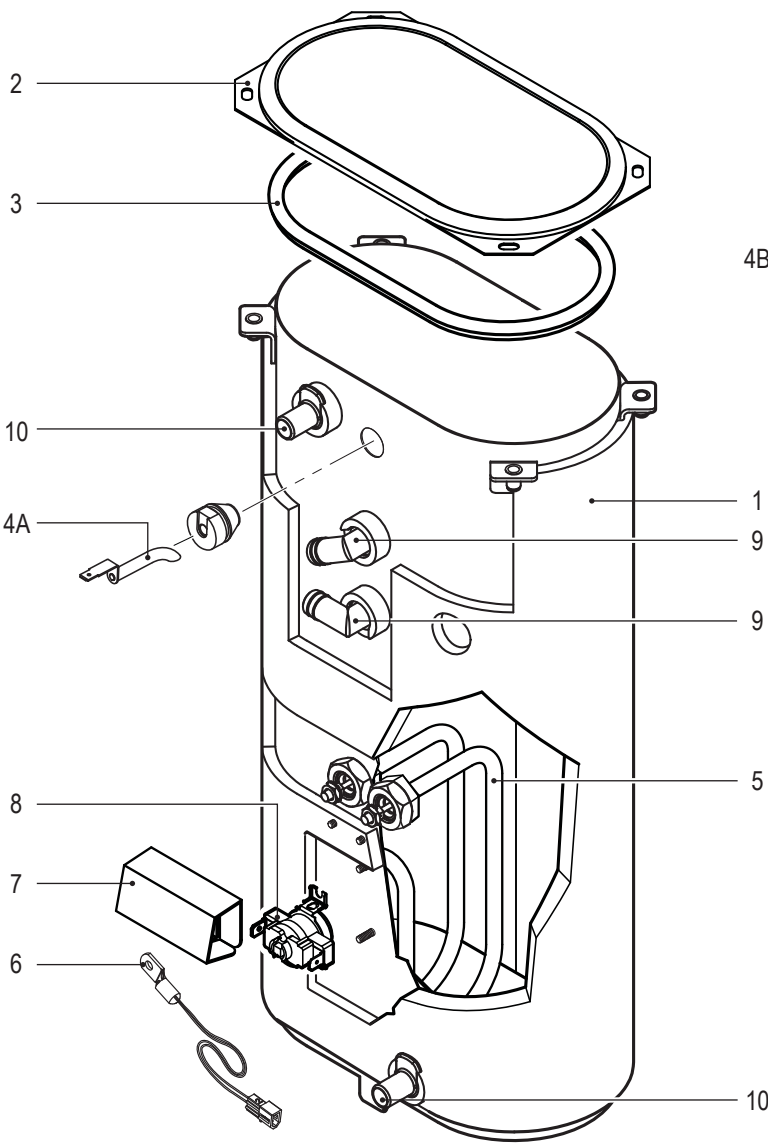
^a Newer units. Stainless steel fitting kit (4A) is compatible with older units.

^b Older units.

*Recommended parts to stock.

ITEM #	PART #	DESCRIPTION
12A ¹	WC-61335	COVER, SIDE TLP
12B ²	WC-61354	COVER, SIDE SS TLP
12C ³	WC-61354-101	COVER, SIDE SS TLP 19"
12D ¹	WC-61335-101	COVER, SIDE TLP
13	WC-2401-P	KIT, ELBOW 3/8 NPT X 1/4 FLARE
14	WC-1408	CORD GRIP, 7/8" O.D.
15	WC-1200	CORD, 14/3 SJTO 6' BLK W/PLUG
16	WC-13418	HARNESS ASSY, CONTROL 120V TLP
17	WC-29044-101	SLEEVE, OVERFLOW
18A ^a	WC-4213-P	NUT, 5/8 LOCK PLATED
18B ^b	WC-4212-02	NUT, 5/8-18 JAM PLASTIC
19	WC-826L*	VALVE, INLET 1 GPM 120V 9W
20	WC-5310*	TUBE, 5/16 ID x 1/8W SILICONE GEN USE
21	WC-5231*	COMPOUND, HEAT SINK 5OZ
22	WC-102*	SWITCH, TOGGLE NON-LIT SPST 15A 125/6A 250VAC RESISTIVE
23	WC-3503	LEG, 3/8"-16 STUD SCREW BUMPER
24	WC-37252	KIT, HOT WATER FAUCET REPLACEMENT ALPGT/D60GT/D500GT

WC-62086 - Tank Assembly



Water Level Probe Detail
(Older Units)

WC-62086 - Tank Assembly - Parts List

ITEM #	PART #	DESCRIPTION
1	WC-62086	TANK, COMPLETE 1450W-120V TLP
2	WC-5853-102	COVER, TOP HEATING TANK GEN USE
3	WC-43062*	GASKET, TANK LID
4A ¹	WC-5528K*	KIT, WATER LEVEL PROBE, SILICONE
4B ²	WC-5502-01*	KIT, PROBE, ASSY WATER LEVEL W/HEX FITTING, O-RING & NUT
5	WC-917-04*	ELEMENT, HEATING 1.45KW 120V W/JAM NUTS & SILICONE O-RING
6	WC-1438-101*	SENSOR, TEMPERATURE TANK

ITEM #	PART #	DESCRIPTION
7	WC-4394*	GUARD, SHOCK/HEATING ELEMENT FOR SINGLE HEATING ELEMENT
8	WC-523*	THERMOSTAT, MANUAL RESET 120/ 240 VAC 25A 220 DEG F MAX
9	WC-37365*	KIT, FITTING TANK INLET
10	WC-37317*	KIT, STRAIGHT FITTING & BUSHNG 8mm GEN USE

¹ Units built 01/04/2019 and later.

² Units built before 01/04/2019.Replaces WC-5527.

* Recommended parts to stock.

POWER CORD
14/3 SJTO

POWER SUPPLY
120VAC/1-PHASE
50/60HZ, 2W+G

TOGGLE SWITCH
SPST

.47MF
275VAC
C1
FILTER

THERMOSTAT
MANUAL RESET
SET AT 220°F

BLK/14GA
WHT/14GA
GRN/14GA

CHASSIS GROUND

HEATER
1450W/120V

CONTROL BOARD

WATER LEVEL PROBE ASSY

WATER TANK

TEMP. SENSOR

INLET VALVE

BREW PUMP

SPS MODULE

16-PIN CONNECTOR (UPM)

PIN#	DESCRIPTION
1	Vss- (Logic Common)
2	Temperature Sensor
3	Temperature Sensor
4	Not Used
5	Data_Comm_First
6	Chassis Ground
7	Not Used
8	Vdd +5V
9	Water Level Probe
10	Not Used
11	Not Used
12	Not Used
13	Inlet Valve
14	Brew Valve
15	120 Vac Hot
16	120 Vac Neutral

4-PIN CONNECTOR (SPS)

PIN#	DESCRIPTION
1	Vdd +5V
2	Vss- (Logic Common)
3	Data_Comm_First
4	Data_Comm_Next (Not Used)

VOLTAGE: 120 VAC
WATTAGE: 1500W
AMPERAGE: 12.5 A
HERTZ: 50/60 HZ
WIRES: 2W + G
PHASE: SINGLE

2 INSTALL GROUND ON TANK BEFORE CHASSIS.
1. ALL WIRES SHALL BE MINIMUM 18AWG
NOTES: UNLESS OTHERWISE SPECIFIED

**WARNING:**

Electric Shock Hazard - the following procedures are to be performed only by a qualified service technician. Disconnect power when replacing components. Neither Wilbur Curtis Co., Inc. nor the seller can be held responsible for the interpretation of this information, or any liability in connection with its use.

Scald and Burn Hazard - keep body parts clear of hot surfaces during troubleshooting.



IMPORTANT: If it is necessary to replace the control board, always check the inlet valve coil for a short and replace the valve as necessary, before replacing the board. See the **Inlet Valve Test Procedure**, below to test for defective valves.

Troubleshooting Guidelines

- If the READY light flashes an error code (a series of long and short flashes), consult the **ERROR CODES** section before troubleshooting.
- A brewer that is not level may not function properly. Make sure that the brewer is properly leveled before proceeding.
- This troubleshooting guide identifies some, but not all, of the possible causes for common problems that can occur.
- Use this troubleshooting guide along with the appropriate **ELECTRICAL SCHEMATIC**.

Inlet Valve Test Procedure

Use a digital multi-meter (DMM) to measure the resistance of the valve coils.

Measure the resistance across the valve coil terminals with the wiring harness disconnected. Reverse the DMM leads on the terminals and measure the resistance in the opposite direction. A resistance of less than 100 ohms, in either direction, indicates a shorted coil. The valve must be replaced.

If a shorted coil is not detected, test for an open coil:

- 1 Reconnect the valve terminals to the wiring harness.
- 2 Power up the brewer with the appropriate cover removed to allow access to the valve.
- 3 Run a brew cycle while monitoring the voltage at the inlet valve coil terminals. If voltage is present on the terminals, you should hear the valve click open/closed at the moment power is applied or removed from the terminals. The inlet valve should open any time the water tank is not full. If the valve does not open when power is applied, replace it. If a voltage is not detected, first check the wiring. If the wiring is OK, replace the control board.

No Power - No Lights Lit on Control Panel

- 1 Make sure the circuit breaker to the circuit supplying power to the brewer is not tripped and is turned on.
 - 2 Make sure the power plug is connected to the electrical outlet.
 - 3 Make sure that the main power toggle switch on the back panel is turned ON. Make sure the control panel is on (press the POWER button).
 - 4 Verify that all wires from the power cord are properly connected inside the unit. Check to make sure the wires are not burned/overheated. Check chassis ground.
 - 5 Check to make sure power and ground are being supplied to the control board. If there is power into the control board, but the control panel does not light, check the wiring between the control board and the SPS module (control panel). If the SPS wiring is OK and power is being supplied to the control board, but the control panel does not light, either the SPS module or the control board is bad.
 - 6 If there is no power into the control board, trace the circuit back (using the wiring diagram) to the power cord to find out where power is lost. If there is power into the thermostat reset switch, but not out, see step 7.
- continued...

No Power - No Lights Lit on Control Panel (cont.)

- 7 If there is power into the thermostat reset switch, but not out, check to make sure that the water tank is not empty. If the tank is empty, the thermostat reset switch has probably opened up due to a low water level, go to **Water Tank Does Not Fill**. If there is water in the tank, but no power out, push in on the thermostat reset switch button to see if it restores power. If power is restored, check to make sure that the switch is not opening up at the wrong temperature (the switch should not open up at normal water temperatures). If there is still no power through the switch after pushing the button, replace the thermostat reset switch.

Water Does Not Heat At All

The following steps assume that the POWER light on the control panel comes on when the unit is turned on. If the POWER light does not come on when the unit is turned on, go to **No Power - No Lights Lit on Control Panel**.

- 1 Check to see if the water level in the tank is in contact with the water level probe. If not, see **Tank Does Not Fill**. The water will not heat unless it is in contact with the probe.
- 2 If the water heats, but is not hot enough, see **Water Not Hot Enough**.
- 3 If the READY light is on, but the water is not hot, check the resistance across the leads of the temperature sensor. If the resistance is less than 10 k and the water is not hot, replace the temperature sensor. If the sensor resistance is above 10 k when the water is cool, replace the control board.

If the READY light is not on, and the water does not heat:

- 4 Check for power across the terminals of the heating element. If power is being supplied, remove the wires and check for an open heating element.
- 5 If there is no power to the heating element, trace the circuit back (using the **ELECTRICAL SCHEMATIC**) to find out where power is lost.
- 6 If there is no power out of the control board and the water in the tank is in contact with the water probe, the control board is probably bad.

Water Too Hot (Boiling or Excessive Steaming)

IMPORTANT: Before proceeding, make sure that the control panel temperature is adjusted to compensate for higher elevations. The factory setting is 200°F. Reduce the factory set temperature setting two degrees for each 1000 feet of elevation above 4000 feet.

- 1 First check to make sure that the temperature sensor is attached tightly to the tank and that heat sink compound was used. A properly mounted sensor should have a resistance of around 7 k when the water is hot. If not, replace the sensor.
- 2 Check to see if the control board constantly supplies power output to the heating element, regardless of the resistance of the temperature sensor. If so, the control board is probably bad.

Water Not Hot Enough

- 1 If the water heats, but is not hot enough, first check for the correct temperature setting on the control panel. See the **Programming Guide** section. Reprogram as necessary.
- 2 If the temperature setting is OK, and the actual water temperature does not match the setting on the control panel, replace the temperature sensor.

Water Heats More Slowly Than Usual

- 1 Check for power across the terminals of the heating element. If power is being supplied, disconnect the heating element and check for continuity. Replace a heating element if the resistance is too high (nominal resistance is 13 Ohms).
- 2 If 120 Volts (nominal) is not being supplied to the heating element, first check the wiring harness. If the wiring harness is OK, check to make sure that the power output of the control board is 120 Volts. If not, replace the control board.

Temperature Sensor Error

This error indicates a malfunction (open circuit) in the temperature sensor system. Once the malfunction is corrected, the error message must be cleared. To reset the brewer and return to normal operation, turn the toggle switch on the back of the brewer to the OFF position for 10 seconds, then back ON.

- 1 Check the resistance across the leads of the temperature sensor while it is disconnected from the control board. If an open circuit is measured (resistance above 200 k), replace the sensor.
- 2 If the sensor resistance is less than 200 k check the sensor wires for corrosion and reconnect them to the control board. If the error code comes back after resetting the control board, replace the control board.

Water Tank Does Not Fill



IMPORTANT: No water or low water in the tank can cause the tank to overheat, resulting in the thermostat reset switch opening. If after correcting a tank fill problem there is no power to the control panel, make sure the water temperature is below 200°F, then push the reset switch button to reset.

- 1 Check to make sure the water supply is turned on. Check for a plugged water supply line, water filter or inlet valve.
- 2 If there are no plugs in the water supply line, check for power across the inlet valve terminals. If power is being supplied, but there is no water flow, replace the inlet valve.
- 3 If power is not being supplied to the inlet valve, check the wiring to the inlet valve. Check for corroded connections.
- 4 If the wiring to the inlet valve is OK, but there is no power to the inlet valve, remove the orange wire from the water tank probe. If the water tank starts to fill, replace the water probe. If the water tank does not start to fill, replace the control board.

Water Level Error

This error occurs when the inlet valve solenoid has been on too long during initial fill or tank refill. See the **ERROR CODES** section for the maximum times allowed. Once the malfunction is corrected, the error code must be cleared. To reset the unit and return to normal operation, turn the toggle switch on the back of the brewer to the OFF position for 10 seconds, then back ON.

- 1 Make sure that the water supply valve is completely open and that the water filter is not plugged.
- 2 Check to make sure that the flow rate from the water supply line meets the minimum flow rate specifications for the brewer. Also check the water pressure. See the **SPECIFICATIONS** section.
- 3 Check for blockage at the inlet valve inlet or outlet. Check for blockage in the tubing between the inlet valve and the water tank.
- 4 Check the water probe wire for an open condition or corroded connections.
- 5 If the probe connections are OK, cycle power to the unit by turning the rear toggle switch OFF, then ON. Check to see if power is applied to the inlet valve terminals. If power is applied to the terminals, but there is no water flow, replace the inlet valve.
- 6 Check for power from the control board to the inlet valve. If the wiring is OK, replace the control board.

Water Tank Overfills

- 1 Turn the toggle switch on the back of the brewer ON and OFF. If water continues to flow when the switch is in both positions, replace the inlet valve.
- 2 If water stops flowing to the water tank when the toggle switch is turned OFF and continues when the switch is turned back ON, remove the orange wire from the water probe on the tank. While power is ON, short the end of the orange wire to the metal surface on the outside of the tank. If the water tank stops filling when the orange wire is shorted to the tank, check for a corroded connection at the water probe.
- 3 If water does not stop flowing when the orange wire is shorted to the tank, check the tank ground connection and the continuity of the orange wire connecting to the control board. If both are OK, replace the control board.

Brewing Does Not Start When BREW Button is Pressed

The following assumes that the READY light is on when the BREW button is pressed.

- 1 If the BREW light comes on when the BREW button is pressed, but brewing does not start, check for faulty wiring and connections to the brew pump. If power is being supplied to the pump, but the pump does not come on, replace the pump. If there is no power coming out of the control board, but the BREW light is lit, the control board is bad.
- 2 If the BREW light does not come on when the BREW button is pressed, check the wiring between the control board and the SPS module (control panel). If the SPS wiring is OK, either the SPS module or the control board is bad.

Dispenser Overflows During Brewing

- 1 Make sure the dispenser is empty before starting the brew cycle. If not, empty it before brewing.
- 2 Check to make sure the brew volume level is set properly. See the *Programming Guide* section.
- 3 Check for a missing spray head. Replace as needed.

Dispenser Not Filled To Normal Level During Brewing


- 1 Check to make sure that the brew volume is set properly. See the *Programming Guide* section
- 2 Check to make sure that the flow rate and water pressure from the water supply line meet the minimum specifications for the brewer. See the *SPECIFICATIONS* section.
- 3 Check to make sure that the spray head is clean and free of debris. Clean or replace as needed. Also make sure that the spray head is correctly aligned and that the tubing is routed properly to allow for maximum water flow (no kinks).
- 4 Remove the brew basket and place a large container under the spray head. Run a brew cycle and confirm that the brew pump operates during the brew cycle. If flow is restricted, check for obstructions in the related tubing. If there are no obstructions, but flow is slow, it can be assumed that the pump is not working properly and should be replaced.


Coffee Too Strong

See *Dispenser Not Filled To Normal Level During Brewing*.


System Fault Messages

- The control board is equipped with an error code system. It is designed to quickly advise you of certain problems the brewer may experience, expediting service or repair. Error codes are indicated by the READY light on the control panel flashing one of the patterns shown below. Any brewer service must be performed by a qualified service technician.
- Error codes are reset by turning the rear toggle switch to the OFF position for a minimum of 10 seconds, then back ON.
- Occasionally, an error code may be caused by a problem with the water supply or electrical power that is NOT directly associated with a fault in the brewer itself. For example, a clogged water filter may cause a water level error code.

Long flash = 

Short flash = 

Legend






READY light

WARNING: DO NOT REMOVE FILTER BASKET WHILE BREWING

READY

BREW FULL

BREW HALF



Water Level Error

Temperature Sensor Error

Communication Error

ERROR MESSAGE	WARNING DESCRIPTION	CAUSE
Water Level Error	Fill run error/overflow	The water inlet valve has either been open for more than 10 minutes on the initial tank fill or has been open for more than 30 seconds in normal open.
Temperature Sensor Error	Open temperature sensor	Break in the temperature thermistor.
Communication Error	Communication error	Break in the communication wires between the control boards and SPS module.

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 other electrical components, fittings and tubing

Additionally, Wilbur Curtis Co., Inc. warrants its grinding burrs for four (4) years from the date of purchase. Stainless steel components are warranted for two (2) years from the date of purchase against leaking or pitting. Replacement parts are warranted for ninety (90) days from the 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 800-995-0417. 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. 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. Wilbur Curtis Co., Inc. will not accept any responsibility if the following conditions are not met. The warranty does not cover:

- **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.*
- **Replacement of items subject to normal use and wear:** *This shall include, but is not limited to, spray heads, faucets, light bulbs, shear disks, "O" rings, gaskets, silicone tubing, silicone elbows, canister assemblies, whipper chambers and plates, mixing bowls, agitation assemblies and whipper propellers.*

The warranty is void under the following circumstances:

- **Improper operation of equipment:** *The equipment must be used for its designed and intended purpose and function.*
- **Improper installation of equipment:** *This equipment must be installed by a professional technician and must comply with all local electrical, mechanical and plumbing codes.*
- **Improper voltage:** *Equipment must be installed at the voltage stated on the serial plate supplied with this equipment.*
- **Improper water supply:** *This includes, but is not limited to, excessive or low water pressure and inadequate or fluctuating water flow rate.*
- **Damaged in transit:** *Equipment damaged in transit is the responsibility of the freight company and a claim should be made with the carrier.*
- **Abuse or neglect (including failure to periodically clean or remove lime accumulations):** *The 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.*
- **Unauthorized repair or modification:** *This equipment must be serviced only by qualified service technicians, using factory specified parts to factory specifications.*
- **Modified/Missing Serial Tag:** *The serial number label (tag) must not be defaced or removed.*

Repairs and/or Replacements are subject to Curtis' 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. Wilbur Curtis Co., Inc. will allow up to 100 miles, round trip, per in-warranty service call.

Return Merchandise Authorization (RMA): All claims under this warranty must be submitted to the Wilbur Curtis Technical Support Department prior to performing any repair work or return of this equipment to the factory. **All returned equipment must be properly re-packaged in the original carton and received by Curtis within 45 days following the issuance of a RMA.** 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). THE RMA NUMBER MUST BE MARKED ON THE CARTON OR SHIPPING LABEL. All warranty claims must be submitted within 60 days of service. Invoices will not be processed or accepted without a RMA number. Any defective parts must be returned in order for warranty invoices to be processed and approved.** 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.